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RESEARCH REPORT

COMBATTING PILOT ATTRITION IN THE USAF IN THE 1990s

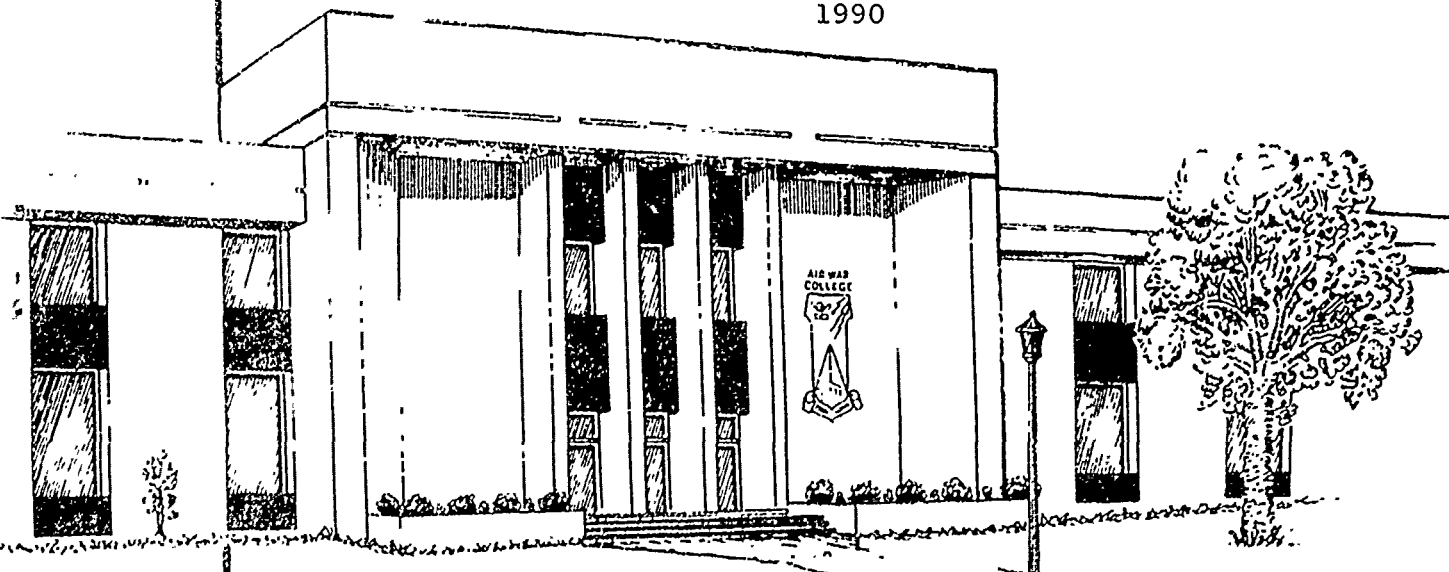
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LIEUTENANT COLONEL JAMES C. PARKER, CAF

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UNITED STATES AIR FORCE
MAXWELL AIR FORCE BASE, ALABAMA

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COMBATTING PILOT ATTRITION IN THE USAF IN THE 1990s

by

James C Parker

Lieutenant Colonel

Canadian Armed Forces



A DEFENSE ANALYTICAL STUDY SUBMITTED TO THE FACULTY
IN
FULFILLMENT OF THE CURRICULUM REQUIREMENT

Advisor: Colonel Joseph K. Britan

MAXWELL AIR FORCE BASE, ALABAMA

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EXECUTIVE SUMMARY

TITLE: Combatting Pilot Attrition in the USAF in the 1990s

AUTHOR: James Parker, Lieutenant Colonel, Canadian Armed Forces

Manning of the USAF's pilot positions in the late 1980s again fell to crisis levels. The Aviation Career Improvement Act (89) and shrinking USAF force requirements have ameliorated the worst effects of this crippling problem; however, the current relief from heavy attrition may only be a temporary lull in the action. The USAF remains the major training stream for the US commercial air carriers, and the draw on the USAF pilot population over the next ten years is projected to be extremely heavy.

The USAF pilot attrition situation will be compared to the recent Canadian experience, along with several supporting ideas from the British attack on the problem. This study will show that the high motivation and morale that has kept many pilots in the USAF beyond their ADSC during the 1980s will become more and more difficult to maintain as tighter budget restraints and shrinking resources combine to limit future career options.

The 1990s budget reductions and associated structure modifications offer the USAF one unique opportunity to revisit and decapitate this persistent problem. This study suggests that few new policy modifications remain to mitigate future crises. It recommends several policy refinements, including the implementation of a dual track pilot career system, to cure the effects of future pilot attrition.

BIOGRAPHICAL SKETCH

Lieutenant Colonel James Parker is the Canadian International Officer in the AWC Class of 1990. He is a Canadian Armed Forces (CAF) pilot who has flown twin-engined anti-submarine Tracker (CS2F) aircraft for Maritime Air Group (MAG) and twin-engined Huey helicopters for 10 Tactical Air Group (10 TAG). 10 TAG is the Canadian Air Force Group (equivalent to a USAF wing) which provides aviation support to the Canadian Army component; MAG likewise supports the Canadian Navy component.

His previous tour before AWC was in the Directorate of Military Manpower Distribution (DMMD) in National Defence Headquarters in Ottawa. Here he oversaw the equitable distribution of personnel shortfalls of all military occupations of the Regular Force Component of the CAF. One of his most interesting secondary duties in this job involved participation in a formal working group tasked to review and rework the CAF pilot attrition problem. Studying the USAF problem and comparing it to the Canadian and British situations was an obvious extension of this interest.

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CHAPTER 1

INTRODUCTION

"While overall retention rates are strong, pilot retention rates remain a problem as the Air Force continues to lose well-trained experienced pilots. This is largely due to increased competition with the commercial airline industry for quality pilots--a trend expected to continue through the middle 1990s. Pilot retention is at a crisis state and is a major Air Force concern."

The personal signatures of the USAF's Secretary of the Air Force and the USAF's Chief of Staff appeared directly opposite this worrisome quote from the recent USAF REPORT TO THE 101ST CONGRESS OF THE USA--FISCAL YEAR 1990. Was this particular arrangement indicative of strong personal concerns regarding the health of the heart of the USAF? These two senior officials were obviously very concerned about pilot attrition's possible long range effects on the fighting fitness of one of the strongest air forces in the world. The re-appearance of another threatening drop in the pilot retention curve seemed very similar to the early 1980s nightmare when pilot retention figures hit record low percentages.

However, this second crisis situation for the USAF has temporarily been averted by "peace breaking out all over." But there is a distinct possibility that the USAF is not free and

clear of the problem yet. The fiscal demands of a huge equipment modernization program are now combining with the political pressures caused by the USSR's vibrant leader and "Glasnost" to cause many of this nation's politicians to call for deep cuts in the American defense budget. As money and resources tighten up, is there no lasting cure for pilot attrition other than to attempt to buy back the services of many experienced pilots, who are now threatening to leave the USAF in droves? Has society changed so much that the thrill of flying high-technology aircraft in challenging roles, and standing on guard for one's country, no longer appeals to a younger population with such valuable skills that they can capture twice their military earning potential employed as low-challenge, high-technology airbus "drivers"?

A cursory study of the superficial questions posed above and the steps taken so far to ameliorate this critical situation would seem to indicate that the swiftest answer is "yes". However, when reflecting on pilot attrition's persistence throughout most of the air forces of the western world, one would tend to postulate that there must be numerous other ways to deal with the situation. USAF, Canadian Armed Forces (CAF) and Royal Air Force (RAF) personnel staffs have recently proposed and implemented several solutions to this annoying phenomenon with differing values of effect.

This analysis will compare American and Canadian strategies to counter both current and future levels of pilot attrition.

It will also call on parallels in the RAF pilot personnel system as support for a few of the more exotic suggestions herein. It will first attempt to document many of the identified factors which impinge on this problem in the USAF situation. While doing so, it will attempt to answer several related questions. First, just what is causing the current movement to the airlines? How deep and strong is this draw to the airline career field, and how long is it likely to last? What is the likely effect of this attrition on the USAF during the upcoming decade? And last, but not least, if future pilot availability for the USAF appears to be jeopardized, what else can the USAF do to ameliorate, if not eliminate, the problem?

In attempting to answer the last of these questions, the study will extensively review the pilot attrition situation in the USAF's closest neighbor. Here exists an air force approximately one-tenth the size of the USAF, which is exposed to most of the same strains and stresses to which the USAF is currently susceptible. The study will review the recent steps taken by the CAF to respond to its own attrition problem. The similarities and differences between the American and Canadian situations will be reviewed, and the applicability of the Canadian responses to the American situation will be discussed. A few of the RAF's recent initiatives to combat pilot attrition will also be addressed in this analysis.

If nothing else, simply understanding what causes the commercial airlines' demands for pilots, and the fluctuating

nature of this demand curve, may well reveal better ways to improve, if not eliminate, this resource-depleting situation.

The former Canadian Director General of Manpower Utilization was an ardent student of Chinese culture. He was fond of pointing out that the Chinese symbol for crisis is composed of two separate elements: one character symbolizes danger; the other symbolizes opportunity. In another thorough review of this USAF crisis situation, this time from an interested but unbiased source, perhaps the danger zone of this current phenomenon can be probed thoroughly and more lasting cures to this debilitating problem can be devised.

CHAPTER II

DEFINITIONS

"PULL" -- used throughout this paper to indicate a factor external to the USAF (or largely beyond the USAF's control) which may be causing pilots to leave the service. The most obvious "pull" at this time is the current insatiable appetite of the major US commercial airlines for trained and experienced pilots.

"PUSH" -- used throughout this paper to indicate a factor internal to or largely affectable by the USAF which could be causing pilots to leave the service. One obvious "push" is the ugly reality of USAF life which requires that many USAF pilots must serve in "undesirable" locations, since that is where the USAF bases are located.

"AVIATION CAREER IMPROVEMENT ACT of 1989 (ACIP/89)" -- a comprehensive bill introduced to the Senate on 17 Mar 89 and passed by both houses on 29 Nov 89. This bill integrates Aviation Career Incentive Pay and Aviator Continuation Pay into one package. This bill also tightens the various gates for continuing ACIP (the number of years which a pilot must remain flying) while raising the amounts paid out.

"ACTIVE DUTY SERVICE COMMITMENT (ADSC)" -- commitment by individuals to serve a specified period of engagement upon receipt of training, promotion or PCS. ADSC has just been amended by ACIP/89 to 9 years for jet training and 7 years for all other personnel who receive pilot training.

"CUMULATIVE CONTINUATION RATE (CCR)" -- used by the USAF to calculate pilot retention rates. "CCR is defined loosely as the probability that a pilot would remain in the Air Force through those critical years selected as significant in the retention decision cycle". (1) Hence the CCR of a six-years-of-service pilot is currently defined as an estimate of the number of pilots entering their sixth year of service who, based on a 12-month look-back, will complete their 11th year of service if current retention rates continue. As newer terms of service with longer ADSC terms begin to apply to new pilots, this CCR zone will be adjusted through the longer years of service to continue to bracket the first five critical years after ADSC commitments are completed. These years will continue to be the most critical ones determining the health of the occupation.

"AVIATION CAREER INCENTIVE PAY (ACIP)" -- a variation of flight pay, last boosted in 1981.

"AVIATION CONTINUATION PAY (ACP)" -- an interim pay improvement package instituted by the USAF and USN on 1 Jan 89 as an expedient measure to help counter rising pilot attrition. This

"Re-Up Bonus" is prorated, depending on the years of service of the pilot involved. Contract amounts vary from \$12,000 for a pilot who has served 8 years to \$6,500 for a pilot who has served 13 years. This bonus is only paid to those pilots considered to be in the "critical" years of their career zone. Pilots who are still serving beyond 15 years of service are now considered "career oriented" and are not considered to be in need of further financial incentives. Likewise, navigators and helicopter pilots will not be eligible for the bonuses because their retention rates are high enough that the extra incentive offered by the bonuses is not required. (2)

"INSTRUMENT FLIGHT RULES QUALIFIED PILOT (IFR Pilot)" -- Used as a basic discriminator in pilot selection for employment by commercial airlines. An experienced pilot will have at least 50 hours of "actual IFR" time, which means that he or she has flown as pilot-flying-aircraft for 50 hours in cloud or visibility-obscured conditions which force him or her to rely totally on the instrument panel for aircraft performance and attitude information.

CHAPTER III

THE "HEALTH" OF THE USAF PILOT SYSTEM

The "health" of any nation's air force is often superficially measured by examining its pilot situation. It remains a basic truism that mediocre pilots, or a minimal-strength pilot population, will not produce a fit fighting air force capable of sustained conflict. As an indicator of the strength of any nation's peacetime air force, this particular gage remains more useful than most.

The USAF measures the "health" of its pilot population using a gage called the Cumulative Continuation Rate (CCR). Another loose definition of this rate, compared to the earlier one offered in Chapter II, is the probability that a pilot will remain in the USAF through those years which are thought to be the most critical ones between the time that his or her ADSC or "payback for training" expires and the time when he or she is likely to remain in the service long enough to collect a pension. (3) The CCR is simply an educated guess, based on trends established over the last year, applied to all of the pilots in a particular year group.

The USAF Pilot Retention Trend for the last ten years is

usually quoted using the CCR for the current pilot group which now has six-to-eleven-years of completed service. The CCR of this particular service group has been used as the critical indicator of the present "health" of the USAF pilot force for several years. The recent retention trend of this critical population is portrayed in Figure 1.

Figure 1--Pilot Retention Trend

Summary of Six to Eleven Year Group

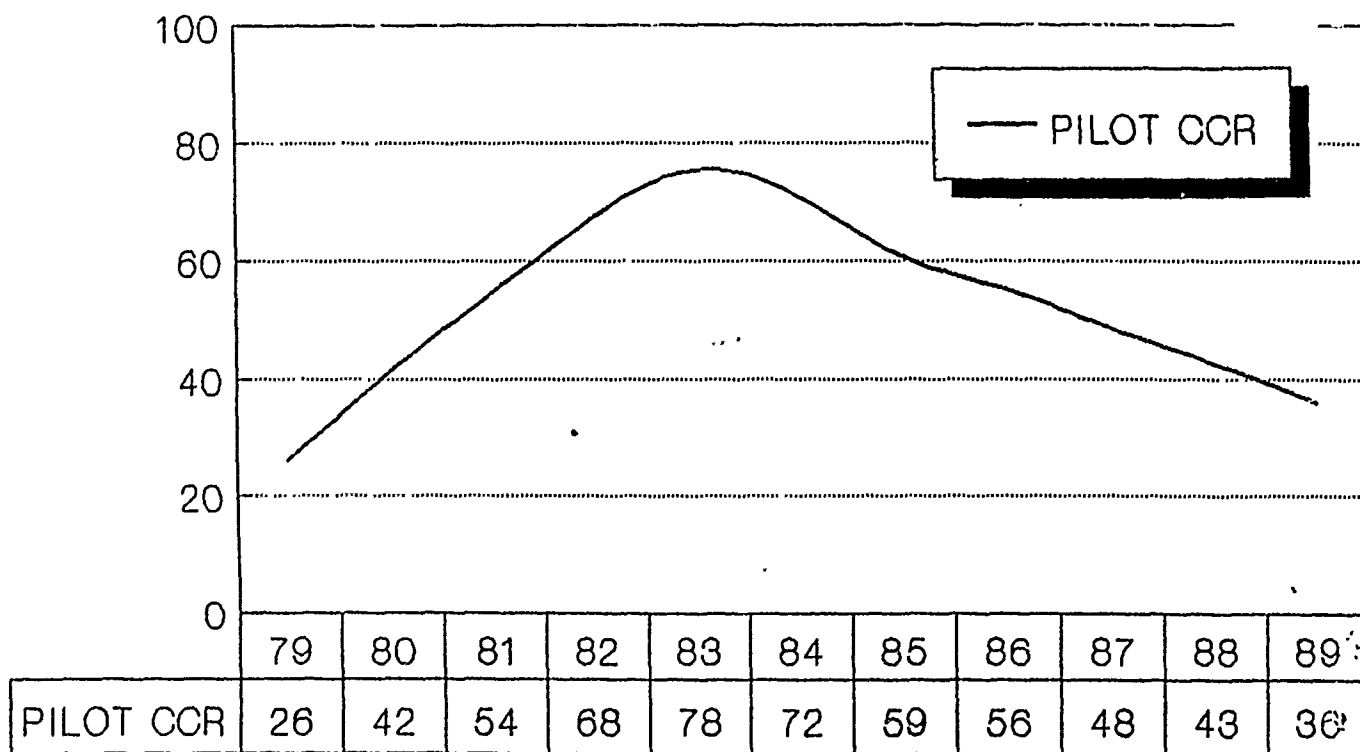


Figure 1 from Air Force Personnel Retention Center, as of Dec 89

Current USAF personnel planning models postulate that the USAF must maintain a long-term CCR of 60 to 70 percent to

satisfy long-term sustainment rates. "Too low a CCR can mean that the ratio of experienced pilots to inexperienced pilots is low. Accident rates go up. Readiness goes down because of all the training needed by inexperienced pilots and the lack of an adequate manpower base for selecting appropriate aviation leaders." (4)

Lt Gen Hickey, USAF deputy chief of staff for personnel, amplifies the problem: "It is hard to make people understand that I don't have trouble getting new pilots--I can get as many as I can afford to train--my problem is that I cannot retain them." (5) The real problem is to retain pilots through the mid-career range, until the draw of a pension holds the ones who would likely be inclined to seek other employment.

The USAF CCR for pilots in the examined zone (currently that tenuous zone of 6 to 11 years of commissioned service) dropped below this "acceptable" 60% CCR rate in 1985 and has been sliding further ever since. (6) It was the sustained decline of this level to well below 60 percent which eventually motivated concerned members of Congress to initiate an update to the 1974 Aviation Career Incentive Act. This update substantially boosted financial incentives for many of the pilots in these critical mid-career zones.

Several recent USAF personnel studies have micro-analyzed pilot attrition and tend to agree that there are three very distinct populations of pilots. (7) Thirty percent of the USAF pilot population will stay in uniform through good and bad

times because they are committed to an air force career.

Likewise, thirty percent will leave as soon as they possibly can because of personal reasons. The other forty percent may drift to either camp. "That's where the battleground is, and that's who we're competing for," said Lt Gen Hickey in a 1989 interview. (8) This forty percent constitute the group being catered to with incentives and bonuses. Lt Gen Hickey admits that the USAF would much prefer not having to rely on bonuses and financial incentives to encourage retention; however, without these bonuses, the financial draw to the airlines would probably become irresistible.

It does not take a large draw off of this fluid forty percent of the flexible USAF pilot population to drop the target CCR below 62%. Herein lies one of the most basic issues facing the USAF hierarchy and AFMPC staffs. They must create specific personnel policies which cater to a mobile, highly-skilled population which may only have lukewarm motivation. Money and conditions of service will always speak volumes, when no strong patriotic issues exist, to motivate this group. It remains an important challenge to get the balance of benefits versus service just right, and keep it properly tuned to changing conditions and changing times.

CHAPTER IV

THE LINK BETWEEN THE USAF AND AIRLINE SYSTEMS

It may not be well understood that the USAF has served as the main training base for the US commercial airlines system ever since commercial freight and passenger movement became big business in the US. As one indicator of this trend, for the past five years the USAF has produced at least half, and in most cases 70 to 80 percent, of the pilots hired by the major US commercial carriers. In 1988, 95 percent of all pilots hired by Delta Air Lines and 91 percent of the pilots hired by American Air Lines were ex-military. (9)

As the number of airline pilots reaching mandatory retirement age grows much larger in the next few years (it is now 35 years from the end of the Korean conflict), the commercial demand for pilots with extensive flying experience is bound to intensify even further. Senior USAF officials now accept that there is no way that the USAF can match salaries with the commercial airlines. "If we can compete, we will compete only temporarily. I am convinced the airlines can outbid us and will... We won't win a bidding war," stated former Personnel Secretary Green in an interview just before his recent retirement. (10)

For many years, one of the main problems retarding the growth of the civilian pilot training system on this continent has been the continued availability of military-trained pilots. In this regard the USAF has always been its own worst enemy. As long as the military community has continued to produce adequate numbers of pilots willing to transition into airline careers after their compulsory service, the civilian aviation community has had little incentive to generate a separate training program.

The Federal Aviation Administration (FAA) now issues over 12,000 commercial licences per year to pilots with a basic 250 hour background. (11) However, until recent surges in demand loosened hiring requirements, the major US commercial carriers were able to maintain "hard" 4000 hour flight time demands as well as the prior completion of airline transport pilot licence requirements from all perspective pilot candidates. These demands also included considerable instrument flight time and plenty of pilot-in-command time. Thus, for a young newly-licensed pilot wishing to pursue a commercial airline career, the only way to accumulate this high number of hours was to seek employment with a local feeder or regional airline, at an extremely low starting salary.

Concern with the rapidly-expanding need for pilots, coupled with the prospect of a reduced intake of ex-military pilots, recently led senior members of the aviation community to

encourage formation of a separate, formal track into commercial flying. At a 3 Aug 89 Senate aviation subcommittee hearing, several of these members encouraged the 400 North American colleges and universities already involved in "junior" aviation training to expand their programs. These institutions were encouraged to continue to set up more advanced research and development with advanced computer technology, and explore new methods and procedures to help bridge the gap between the basic commercial pilot level and the basic large-carrier pilot entry level. (12) However, the bearing of significant fruit from any such program will not occur for several years. In the meantime, the rising demands of the North American airline industry fuel estimates that 40 to 60 thousand new commercial pilots will be required in the next decade in order to meet the future needs of both the expanding regional markets and the larger commercial airlines. (13)

CHAPTER V

"PULLS" ON THE USAF PILOT SYSTEM

THE "PULL" OF THE NORTH AMERICAN AIRLINES FOR "PRIMARY" PILOTS

In a 1987 comparison of military and civilian aviation careers in the US, two USAF military economists noted that the expected demand for pilots for the major US commercial carriers alone (disregarding regional and smaller carriers) already exceeded the expected total Undergraduate Pilot Training (UPT) population for all ten years from 1987 to 1997. (14) Recalling the earlier statement that the USAF is "the major training system" for all of the large commercial carriers, this estimate indicated that demand created by the "cream of the crop" airlines continues to grow much faster than supply can produce pilots. Roth and Nielson also noted that this expected demand is considerably greater than the total number of USAF pilots who finished their committed service in this same time frame. Hence it is quite conceivable that the major commercial carriers could hire every single USAF pilot who completed his or her ADSC in this time frame, and the growing demand for commercial pilots would still not be satisfied. (15)

At the 3 Aug 89 Senate hearing called to examine North America's growing pilot shortage, Henry Duffy, President of the Air Line Pilots Association, estimated that "more than 32,000 new airline turbojet pilots will be needed over the next decade to fly the growing U.S. airline fleet. An extra 20,000 to 30,000 pilots will also be hired by smaller regional airlines not flying jet aircraft. These projections add even more weight to the prediction that there will be a severe pilot shortage in the early 1990s". (16)

The magnitude of need depicted by several of these current projections is rather startling. It would appear that the recent surge in demand for commercial pilots for the US aviation industry is only a warning wave which precedes an even bigger draw. Several professional groups are interested in the calculation and the tracking of this particular equation. FAPA is the Future Aviation Professionals of America Corporation, an Atlanta organization which tracks the future prospects for aviation enthusiasts. The FAA is the Federal Aviation Administration, the federal body which regulates the industry. And last, but not least, is ALPA, the Air Line Pilots of America, the union which represents pilots in America.

While each of the above organizations keeps its own tally on the airline pilot populations, there is a general consensus that the demand for the next decade is awesome. Table 1 is one such prediction of the needs for commercial pilots for the major

commercial airlines for the 1990s.

TABLE 1

MAJOR AIR CARRIERS (1)

COMMERCIAL PILOT DEMAND IN THE UNITED STATES IN THE 1990s

<u>YEAR</u>	<u>GROWTH</u>	<u>RETIREMENT</u>	<u>TOTALS</u>
1989	2007	0853	2860
1990	1249	1107	2356
1991	1772	1186	2958
1992	1663	1525	3188
1993	1566	1700	3266
1994	1323	1983	3306
1995	1992	2017	4009
1996	1952	2289	4141
1997	2254	2351	4605
1998	1488	2655	4143
1999	2126	2904	5030
2000	1562	2904	4546
Net totals	20954	23845	44799

Source: Draft Pilot Retention Study sponsored by the National Defense Transportation Association.

Notes:(1) This estimate encompasses the estimated demand for all "large" commercial carriers in the USA. These airlines include the Major Carriers, the National Carriers, the Large Regional Carriers, the Medium Regional Carriers, as well the "top 45" Regional/Commuter Airlines and five additional airlines which were considered big enough to be considered as large demanders of new commercial pilots in the 1990s.

(2) FAPA Growth estimates are based on FAA data, and the correction for crew down-sizing from 3 to 2 seat aircraft has already been included in this data.

(3) ALPA Retirement rates are based on newly hired pilots not retiring before the year 2000 (i.e., a maximum hiring age of 48) and the estimation that the future pilot population will continue to maintain the same age profile as this study's base year (1986). This assumption probably skews the estimate slightly due to the young age of most of the pilots currently flying for the regional carriers involved in the study.

The commercial airline business is still expanding rapidly, with a concurrent demand for extra pilots. All of the major commercial carriers are planning for increased business and expanded airplane fleets in the next decade.

"The FAA predicts that US air travel will increase 75% by the end of the century. Flight operations are expected to rise 31% by the year 2000....Looking out to the year 2000, Northwest Airlines foresees its pilot needs rising 15% annually. The carrier is now hiring 60 pilots a month, adding to its current staff of 5600... the carrier has placed orders and options for 230 aircraft to add to its current fleet of 318... Eastern Airlines Inc. is getting back on track, and its proposed strategy includes continued growth throughout the next decade... not currently hiring pilots, but intend to when our expansion plans are in place... American Airlines is also growing rapidly. From its current fleet of 483, it expects to have 575 aircraft by 1995... America West Airlines plans to hire 15% more pilots per year into the 21st century... United has close to 500 aircraft on options and order.... (17)

Delta Airlines currently operates a fleet of 407 large turbojets, and has more than 500 aircraft on options and order. Senior Delta executives predict the operation of a 600 plane fleet by the end of the 1990s. (18)

And these are only the major airline demands for the "primary" fully-qualified pilots during the next decade. There will be further significant demands from all of the small Regional and Commuter aircraft which tie into this larger network. And this "pull" extends further than just to the "primary" pilots.

THE "PULL" FOR "MARGINAL ZONE" PILOTS

In their intensifying search for future pilots, the major U.S. commercial carriers have recently expanded their eligibility zones for qualified pilots. In the not-too-recent past, the major commercial carriers were only interested in pilots who were totally fit and younger than 35 years of age, and the younger the better; however, these same recruiters have now expanded their eligibility zones in terms of both age and medical requirements. Now the major U.S. airlines have begun to hire pilots much older than 35, and the increased experience that a very senior pilot is likely to have is rapidly becoming another valuable commodity as the airlines receive a glut of "junior" applications. The same relaxation of requirements for uncorrected 20/20 vision has also expanded the second-career prospects of many pilots who were formerly "pinned" to the service by slight medical deterioration. These expanded "zones" have reduced, if not eliminated, two of the major restrictions which have probably helped to minimize attrition fluctuations in past years. (19)

THE "PULL" OF THE FOREIGN AIRLINE MARKETS

Another commercial aviation boom is starting to sweep the Pacific Rim arena. The Asia-Pacific region already accounts for some 40 percent of worldwide air traffic, and Japan Air

Lines has already started raiding the US pilot pool to satisfy its own voracious pilot needs. (20) There are no indications that the "pull" from these sources is likely to abate in the immediate future. In fact, most long range predictions appear to emphasize the increasing importance of this sphere of influence.

THE "PULL" OF THE AIR NATIONAL GUARD (ANG)

This is another difficult "pull" to counter. The various ANGs are all constitutionally bounded, based on the militia concept, organized by discrete units, and dispersed throughout the various states. The lure of flying modern aircraft in almost all of today's roles and deployments without the many drawbacks of full time service in the Regular Component has major appeal for many of today's aviators.

This is a long-term "pull" which the current Regular Component should now acknowledge and attempt to turn to its own advantage. Because airline deregulation has caused a massive reorganization of the nation's air networks, there are now several major airline "hubs" (Atlanta, Chicago, Denver, San Francisco, etc.) where the number of ex-military pilots queueing for slots on the available USAF ANG and RES units remains well in excess of current demand. Because the current annual turnover in ANG units is only about 11%, much of this untapped potential is currently wasted. Perhaps future positioning of State ANG units and USAF RES units should attempt to take advantage of this obvious consequence of airline deregulation.

Concentration of new or re-roled units in the same vicinity as the "hubs" of the major airline carriers would allow the USAF to keep many of these pilots in the national inventory, even if only on ANG or USAF RES status.

AMELIORATING FACTORS ON THE AVIATION "PULLS"

There are several external factors which may tend to ameliorate the voracious demand of the airlines for trained pilots over the next decade; however, as is the case with most complicated and long-standing problems, no one factor is big enough or strong enough to solve the entire equation. Instead, it is the synergistic solution of many smaller factors which must be combined to achieve the desired effect.

REDUCTIONS IN THE REGULAR USAF FORCE

When this DAS proposal was set up in September, the proposal for the USAF's structure in the mid-1990s presented few problems. The USAF had a chronic pilot retention problem, which was very unlikely to go away in the foreseeable future. Then, as the world continued to go around, the Soviet menace appeared to evaporate (only historians reviewing our current times long in the future will be able to call this a true or false assessment), the Berlin wall came down, and Soviet hegemony dissolved. The Armenians and the Azerbaijanis, until recently subdued by the Soviet Red Star of peace and togetherness, are now fueding with each other with vicious fury. Lithuania is

demanding total independence from Mother Russia. East and West Germany step ever closer to re-unification. It is not really a time when North American military forces can afford to relax their vigilance. However, popular demand for military cuts rises daily. Secretary Cheney has already announced hard-decision cuts which will begin to dull the edge of the US's recently won military superiority, and this is only the starting hump for an accelerating roller coaster.

The USAF had already begun to shrink in size before the Berlin Wall came down and the cries of "more peace for less money" began to get deafening. Several authoritative figures have noted that the USAF has lost nearly 30 squadrons between 1985 and 1990. (21) In spite of this loss of some 30 squadrons of 18 to 24 aircraft at manning ratios approximating 2 pilots per aircraft ($30 \times 24 \times 2 = 1440$), the USAF's recent loss of pilots has continued to accelerate through this significant organizational decline. Returning to Figure 1 on page 5, we note that the CDR for 6 to 11 year pilots dropped from 60 to 40 percent at the same time as this 1440 pilot reduction was occurring. And there is presently no indication that future cutbacks, predicted to be in the neighborhood of 25 percent, will give the USAF anything more than another temporary respite in the ongoing battle against pilot attrition. "Department of Defense officials have indicated that the Air Force is considering eliminating five tactical fighter wings and closing 15 bases, which could translate into personnel cuts of 25,000 or

more." (22) The gaping hole is simply too huge, and the present USAF leaders who feel that the current cutbacks have solved the problem are lulling themselves into a false sense of security. If any of the the USAF hierarchy thinks that the pilot attrition problem has dissappeared, they are due for another rude shock a few years hence.

Last, but not least, certain operational rules are unlikely to shift significantly whatever the final structure evolves to be. Roles, response times and operational parameters must continue to dictate which units are capable of being re-roled from the active force to the reserves as the USAF structure shrinks and/or remolds itself. The current USAF 2/3 "in-country" and 1/3 "out-country" active force ratios will probably remain somewhat the same over the next ten year period, although the "out-country" totals are quite likely to shrink appreciably. However, be the end structure 3/4 or 1/2 of the USAF's current posture, the "pulls" and "pushes" of the current attrition system will continue to operate, and in several cases these effects are likely to be far stronger than they are at the present time.

IMPROVING THE CIVILIAN TRAINING SYSTEM

Almost all senior aviation executives agree that the major gap in the U.S. "pilot system" is at the training/experience level between the basic 250 hr commercial pilot and the 3000 hr day/night, 100 hr IFR pilot. One of the most significant

hindrances in the current civilian production stream is that the junior commercial pilot must immediately invest another \$5,000 to \$13,500 in the program to gain further experience; this after having subsidized his or her own basic training to the tune of several thousands of dollars. (23) No doubt future volume may reduce this cost somewhat, but it still remains a substantial barrier for many of the "junior" pilots who wish to progress to the senior commercial carriers.

Several long term solutions to filling this gap were advocated at the previously mentioned 3 Aug 89 Senate hearing which focused on U.S. pilot shortages in the next decade. Kenneth Tallman (LtGen, USAF-Retd) advocated the advancement of the FAA's Advanced Qualification Program, which employs up-to-date technology and computer simulation to make up for many hundreds of hours in the cockpit. (24) Several other industry experts called on education institutions to investigate other new technologies and processes to reduce the "flying time" gulf. However, these proposed solutions are many years from fruitful production and will have little effect in the immediate future.

AGE WAIVER FOR HEALTHY "OVER AGE" PILOTS

U.S. Government regulations currently enforce an arbitrary retirement age of 60 on the U.S. commercial pilot population. Many of the pilots trained and blooded during the Korean War are now tripping over this age limit, through no fault of their

own other than their date of birth. Many pilots encounter considerable difficulty in rationalizing the theory behind this arbitrary age limit. It remains within the law for a fully-fit pilot to fly the skies at 59 years plus 364 days of age. However, on the following day, it suddenly becomes illegal for the same man to do the same job that he has accomplished successfully for the last thirty years. And yet the pilot population is one of the most intensely medically-monitored professions in our society. All current pilots face exhaustive medicals at least once per year to prove their fitness.

It is probably only a matter of time until the voracious demand for experienced pilots overwhelms this artificial barrier. However, since it has already been proven that the incidence of significant medical problems does increase with age, probably a pilot over 60 years of age should face the same rigorous physical exam process every three or six months; however, an arbitrary limit of 60 years of age gets more difficult to defend every year as our middle-aged population continues to get wiser, healthier, and represents a bigger proportion of our total viable work population.

THE "FICKLE" NATURE OF THE AVIATION COMMUNITY

Interested members of the military community have long observed the cyclical "boom or bust" nature of opportunities to enter the civilian aviation community. The aviation business rises and falls in predictable cycles, and the intelligent

student of this peculiar profession notices several factors which affect his or her acceptability in the market in any given time frame. The major player in this cyclical market would appear to be the state of the national economy. As the economy flies, so does the aviation business. Hence, in the event of an economic downturn, the expansion plans of many of the major airlines will be curtailed and the parallel pressure on the USAF pilot population will lessen accordingly. However, to hope for a strong recession as a cure to the USAF's pilot woes would probably be viewed as twisted rationale from nearly all quarters. It appears that the USAF will have to learn to live with higher rates of pilot attrition as the economy expands.

Now, aside from the several external factors over which the USAF can exercise little control, there are also several factors created or controlled by the military force itself which may contribute to the pilot attrition problem. In this paper these factors have been labelled as "pushes".

CHAPTER VI

"PUSH" FACTORS IN THE USAF

In contrast to "pull" factors, the USAF has partial or near-total control over some or all of the aspects of "push" factors in the attrition equation. Any one of these factors or situations may sufficiently demotivate USAF members to make them seek alternate employment, or it may become the cumulative effect of degrees of several of them which finally cause a pilot to decide to leave the force.

In the late 1970s, it was perceived that pilot attrition surged because of a crisis in spirit which was caused primarily by the Vietnam failure. The retention of outdated equipment and severe cutbacks in flying hours led to situations where basic proficiency dropped to hazardous levels. The pilot force reacted vigorously to this situation by voting with their feet. (25) This woeful situation was salvaged by a new President with the political incentives to rejuvenate the military forces of the US; however, the boom days of big budgets and limitless resources have now elapsed.

The recent rise in attrition has been traced to several sources, and it is felt that the majority of these factors are not similar to those which caused the attrition in the late

1970s. Some of these "new" reasons remain systemic to any air force in a democratic society, and will have to be faced as such by future military planners; however, other factors may be correctable by such things as a change in personnel policies, changes in basic working conditions, or even such simple things as better or more efficient public relations campaigns.

THE "PUSH" TO THE USAF RESERVE COMPONENT

Approximately 80% of the current USAF Reserve Component is drawn from the Regular Component of the USAF (75% of normal population plus over 90% of rated specialties). (2b) Thus the Regular Component trains and sustains the vast majority of the members of the Reserve Component. Hence, this transfer between components is not really a "push" in the true sense, but is rather an unwritten rule for the Regular Component. One can consider this "push" as a simple transfer between components, with no net loss to "the total system". However, terms of commitment and employment will continue to differ between the separate components, and a current USAF planner must remain cognizant of the turbulence caused by these differing terms of service. However, the USAF Total Force Concept has already ensured that the future reliance on the USAF Reserve Component must be taken as a "fait accompli" in all future planning scenarios.

The activation of Reserve units near airline hub cities has already been mentioned. Future restructuring of the USAF

Reserve forces to cater to this recent airline phenomenon may well help to ameliorate some of the upcoming pilot shortages in the next decade.

THE "PUSH" OF MORALE

"The formula for pilot retention is a curious melange of pay and quality of life weighed against public perception and status in the community. In short, it boils down to that great intangible - morale. When the quality of life is high and the sense of vocation is high, the financial part of the question assumes a lesser importance. When frustration is high, pay and conditions come to the forefront. No matter how many permutations are attempted, if morale is high, retention rates are good; when frustration creeps in, skilled aircrew vote with their feet." (27)

This hypothesis may point succinctly at the heart of the universal pilot problem. It was recently written by a British author, describing Britain's evaluation of their ongoing problem with the retention of their aircrew. Hence it would appear that the struggle to keep a modern air force manned and motivated with talented aircrews will remain a common problem in the 1990s.

The lure of leaving the military environment for better pay and less work time remains pervasive and persistent throughout many English-speaking countries in the western world. Of seven countries contacted by the staff of Air Force Times in late 1988 (Australia, Belgium, Canada, New Zealand, The Netherlands, the United Kingdom and West Germany), only West Germany refused to admit that they had a pilot attrition problem. This is probably due to the fact that Lufthansa

Airlines hires only pilot candidates who are between 18 and 20 years of age and then trains them itself. (28)

The cures to morale problems are difficult to ascertain, more difficult to implement, and the resulting satisfaction is often both temporary and/or illusory. The recent USAF "leather jacket issue" is a typical example. The project was sold on the novel basis that 53,000 jackets could augment aircrew morale at no net cost to the USAF if the end result was the retention of a few valuable aviators. (29) The selling of future initiatives will not likely be either so easy or as clear cut as military resources continue to shrink.

Here is a strong warning flag being raised for senior USAF officers. Cutbacks and reductions in "operational" tours out-of-country will tend to amplify upcoming drops in morale. Col Foglesong noted in his retention article that units with "operational roles" had better retention than other "peacetime units." (30) Future cuts in out-of-country bases and an equivalent reduction in "front-line roles" would appear probable in Phase One of the USAF structure reduction. If this scenario continues to unfold along the same lines as is presently predicted by Congressional observers, accompanying drops in morale and equivalent rises in aircrew attrition are nearly certain to follow.

THE "PUSH" OF PRIORITY: THE FAMILY VERSUS THE JOB

Two diametrically opposing principles offer the current

military leader his or her greatest challenge. Getting the job done efficiently and effectively while still giving the workers enough quality time away from the job to be with their families will continue to be one of the USAF's greatest leadership challenges. Long deployments, lengthy trips, onerous alert commitments, and other job-related movements far from home will always remain a fact of USAF life; however, as resources tighten and task demands continue at the same rate, leaders will probably concentrate on getting the job done at the same old rates while resource bases continue to dwindle. The longer-range cost comes in ignoring the health and welfare of the workers and their families.

And continuing to balance off career and family in our society with the insistent pressures of the 1990s is no easy task. "Sex, drugs, and rock and roll" are still the rebels' calls of the budding generation. Their concerns over sexually transmitted diseases, the hazards of new and more powerful mind-altering drugs, and new waves of frenetic lyrics, totally unintelligible to a more-senior generation, are updated every ten years or so. Vast advances in technology are both a blessing and a curse. Raising children in the modern environment remains a full time occupation in itself. Balancing an enormous home maintenance career against "bringing home the bacon" has never been a simple task. But when the spouse casts the ultimate vote with "my way, or the highway," military leadership has failed in their ultimate challenge: getting the

mission done in the peacetime environment while keeping military people interested, motivated, and engaged.

As resources diminish and cutbacks mount, the military community will be faced with two choices, neither of which is easy. Military leaders need to take a far stronger, jaundiced "can't do" attitude toward many of the miscellaneous tasks which are not totally essential to the mission. Perhaps even so-called "essential" missions will have to take a big cut. If roles and missions must continue at former rates, reduced resources should dictate that new leaders have to start demanding more personnel to share the load. In this regard, as force structures are scrutinized, it is probably timely for Wing Commanders and Squadron Commanders to thoroughly review their aircrew to aircraft ratios. Not just how-many-flying-hours-per-month-per-pilot, but also how-many-weekends-off-per-month-per-pilot? Compensatory time off during the week just can not suffice when the spouse works and the kids are in school. Just how many of those internal reports and returns bouncing around the wing or the squadron are really essential? And how about all of those insidious secondary duties which have long been used to fill the extra areas on annual assessments?

Leading and managing a military unit of any size remains a grand challenge. It gets even more difficult as resources dwindle and taskings don't. It remains a simple principle that many hands make light work, and also share the time-away load. As Wings and Squadrons de-activate, the opportunity

exists for the manning ratios of remaining units to be reviewed very carefully, with strong emphasis towards increased augmentation and reduced "secondary duties." The upcoming unit cutbacks offer a unique opportunity to address some of the structural weaknesses which have existed for many years. Several of this year's Air War College pilots feel that many of our current Squadrons are undermanned and overtasked. And the situation is bound to get worse as funding tightens, if the military community fails to attack the problem from a more human-oriented viewpoint.

THE "PUSH" OF THE DUAL CAREER FAMILY

The expanding expectations of modern North American women present yet another significant challenge which the USAF will have no choice but to adapt to. No longer is the normal familial profile one of the fiery young pilot with adoring new spouse who will follow him or her anywhere. Now many squadron line pilots are married to spouses who make just as much money as they do, and the spouses also expect to pursue a full career. Modification of any system which demands considerable sacrifice from family members must adapt to this new environment. No longer can the service automatically assume that it gets "two-for-the-price-of-one" when officers occupy new posts. If a squadron commander's wife holds a full-time job and further career aspirations, the USAF can no longer demand the same unofficial call to duty which was considered the usual way of

life until the last few years. In late 1987, DoD issued a new defense policy which supposedly banned senior officers from applying coercive pressures on junior officers' spouses. (31) The CSAF and SECAF backed this official policy with further statements which supposedly eliminated this sort of demand as a policy problem. (32) However, "unofficial" word continues to filter down that the USAF hierarchy still contains some senior officers who continue to "expect" this sort of service from military spouses.

The new "dual career couple" continues to force more modifications into modern USAF policy. Pressure on non-service spouses to meet "responsibilities" relating to their spouses' military careers is slowly but surely abating. A program is now being instituted to enhance spousal employment transfer and offer counselling and encouragement during the PCS and family-moving process. (33) Perhaps a strong enough emphasis on this type of networking, and a renewed emphasis on such quality-of-life issues as the reduction of moving-for-the-sake-of-moving, can help to reduce attrition caused by this particular social factor. Last, but not least, a reduction in the proportion of the USAF based out of country, if and when it occurs, should help to reduce the number of PCS moves required to meet these onerous commitments.

THE "PUSH" OF ERODING BENEFITS

It is another fact of life that "peace breaking out all

over" will probably accelerate the gradual erosion or elimination of more of the benefits and privileges which are now accorded to the American military community. The retirement pension system is under constant pressure. Medical benefits for members and their dependents seem less and less each year. Medical facilities are undermanned and overcrowded. (34) Recreational services get more costly each year, as less subsidization by government agencies is permitted. Recent reductions in financial support for both officer and enlisted clubs typify this "death by a thousand cuts." (35) It remains very difficult to quantify the costs of this subtle erosion, but it is no doubt taking a toll.

THE "PUSH" OF MOVING EXPENSES

Since 1986 the USAF has suffered from a severe shortage of PCS funds. The parsimonious management of these funds continues to have many negative effects on the personnel who became the victims of these recent restrictions. The Air Force expects all personnel to move when PCS orders are cut; however, the USAF apparently refuses to recognize many of the extra costs associated with moves as "costs of doing business" which should properly be borne by the system. In recent years it has become quite commonplace for Air Force personnel to spend a considerable sum of money when moving to ensure that their household goods and families are adequately cared for when they move. (36) A 1987 Air Force survey showed that about

two-thirds of the moving expenses incurred by USAF personnel in the late 86 and early 87 time frame were not reimbursed.

(37) However, as is normal with the majority of dissatisfiers which have been localized and identified, this particular dissatisfier has recently been acknowledged by the senior members of the Air Force and is now being addressed as resource restraints permit.

THE "PUSH" OF UNDESIRABLE ASSIGNMENTS

Everybody can't always have the great assignments. Somebody has to man those desolate locations. Someone else has to perform the non-flying-but-rated staff jobs which require an aviation background. Probably the only way to cope with this ugly fact of life is to ensure that all such assignments are shared equally and equitably amongst all of the eligible population. Here, too, the Air Force leadership has acknowledged that the USAF does have a significant problem. The USAF is actively involved in a forces-wide establishment review to ensure that all such ground jobs do indeed require pilot expertise. The "operations management" career field will henceforth help to limit the total number of non-flying rated slots.

THE "PUSH" OF THE ASSIGNMENT SYSTEM AND UNREASONABLE EXPECTATIONS

There is another basic dilemma inherent in the operation of any air force. Nearly all pilots plead that they joined the USAF

to fly. Few are happy when they can't. It is also extremely inefficient to spend several million dollars to train a pilot on a high-performance aircraft and then not employ him or her in the field for which he or she was trained. However, somewhere in the career path as one rises through the organization, one must stop being a pure "technician" and start spending time and effort to develop broader leadership skills. Even as an aircraft crew commander or section lead, a junior pilot is exposed to the unconscious development of concern for other people and their performance. This "weaning" from the pure techniques of being "the best pilot one can be" continues as one's career progresses. Advancement to the illustrious status of flight commander provides a junior leader with the pluses and minuses of managing the concerns of several other folks, as well as leading them and motivating their performance. And the process continues, unabated, from the day one is handed a member or members of a crew, section, flight, squadron, wing, and ever upwards until the day an Air Force Chief of Staff hands the baton on to his successor. However, this process of the "generalization" of a pilot during his career is not well understood by many, if not most, of the warriors who join the Air Force to fly, fly, fly. In this regard, it is probably time to reconsider the implementation of a formal dual-stream system, since nearly all other avenues of policy development appear to be exhausted.

In early formative years, the process of advancement and

"generalization" should be thoroughly explained to all of the young and aspiring flying aces. Then, somewhere near a career midstream point, 8 to 10 years into the career stream (possibly at the time when new USAF pilots will finish off their ADSC), members should be given an obvious choice. If they choose to stay in the pure aircrew environment and wish to continue to fly and fly with minimal chance for rapid advancement, so be it.

There is room in any pilot system for the 25 year Captain with thousands of hours of flying time, who is still motivated by the simple carrots of control sticks and throttles. However, "everybody a General" is an extremely inefficient training system which gets more and more difficult to justify as resources tighten and more people compete for the same courses.

In such a revised system, it must be made crystal clear that this mid-career choice is a definite bridge-burning choice. In other words, one may choose to "fly 'til you die," but one must then expect to die as a Major, at best, and that will only happen if you are one of the lucky few of the "full-time pilots" who gets that last rare promotion into the true supervisory ranks as a worker pilot.

For the ambitious individual who seeks far more than just 10,000 hours in a log book, career development would continue along much the same lines as it does now. However, these individuals would then be well aware that ground tours and other career development slots out of the aircrew environment are a necessity which will never again totally disappear.

As one progresses up the chain of command, time in the cockpit would become more of a privilege and less of a requirement. The days of an "all-fly-no-staff" General are rapidly coming to an end.

Perhaps it is now time to formalize this dual stream process, explain it properly to the younger generation of pilots, and then let them decide for themselves. The present training system of "everyone for Chief of Staff" is inefficient, wastes precious resources, and still engenders false expectations in many of our new pilots. Variations of this proposal are already being researched in some quarters. In his article on pilot attrition, Colonel Foglesong recommends this facet as one of several long term strategies being worked out to reduce attrition. The USAF should "...institutionalize an assignment process that is up front about what a pilot can expect for assignments- within reason. Tell every new pilot to expect to fly the first X years and will probably have to go remote X times or will have to go to a staff X times." (38)

In an 1981 study which was obviously finished just as the USAF climbed out of the attrition pit of the 1970s, USAF Captains Bendick and Jones proposed a dual track system for the USAF in an obvious attempt to retain the majority of their "fly or die" compatriots. (39) In this study they proposed an alternate track for "pure" pilots, which would involve only pilot duties and would have the following characteristics:

The option would be offered to approximately 30% of the

pilot population;

No further PME or advanced degrees would be required;

Limited flow would occur between weapons systems and limited PCS moves would be an obvious side effect;

Promotions would be based only on rated performance, and there would be separate promotion boards for each track;

Pay would be equivalent between tracks, commensurate with promotion;

Tenure would be guaranteed for twenty years as long as performance remained satisfactory. Maximum tenure could last to age 55; and

Supervisory duties would be limited to those duties associated with flying.

Two "phase points" were included in the proposal, at the 12 and 17 year points. These phase points were included in the proposal to cater to the "fly or die" pilot who later in life determined that there was more to the USAF than just a joy stick and a flight suit.

As part of their analysis on this proposal, these two Captains drew up a comprehensive questionnaire on this dual-stream proposal and passed it through two subsequent SOS classes (242 pilots). They layed out an elaborate mathematical model to prove that a dual track system would eventually produce considerable savings for the USAF. However, the surveyed pilots uncovered one probable difficulty with any dual track system. This was the possibility of "cockpit stagnation," due to the

possession of the majority of cockpit billets by "fulltime" pilots, which would hinder the progression of "streamer" pilots moving into and out of cockpits as they progressed through their career paths. This disadvantage to a dual-track system was investigated in the Air Force report on the problems of aviator retention which was forwarded to Congress on 1 Dec 88 as part of the justification for ACIP/89. "The Air Force evaluation assumed fly-only career tracks were reserved for 20 percent of the inventory. This results in a reduction in the number of flying years for "full-track pilots by as much as 1.8 years over a 20-year career." (40)

Similar loaded arguments have been utilized for some time now by USAF researchers who refuse to recognize that there are no more "tweaks" available in the current system. The comprehensive report on long term aviator retention problems forwarded to Congress on 1 Dec 88 contained several negative comments on the split-stream concept.

"Citing AF and Navy studies, the report says that such an approach could (author's emphasis) lead to poorer retention, lower quality pilots, and a smaller pool of leaders to choose from...Also, the fly-only career path is incompatible with the current Air Force process for identifying and training its leadership...Finally, a survey of officers conducted for this report indicated 'that the only Air Force group with a majority favoring fly-only were those who were definitely planning to leave the Air Force.'" (41)

Yes, such a system could lead to poorer retention, and all of the other negative attributes tied to it. But it could also lead to better retention, less "double duty" for the regular-stream pilots, less pressure on the team, a clearer perspective

of what PME and leadership development is all about, and man, or, the other benefits which "old, not bold" pilots can bring into the USAF.

There are two sides to every sword, and this issue is no different. The following author was discussing the benefits of a youthful air force during the stresses of combat, citing the performance of nineteen night Wild Weasel missions in a twenty-day period, and the need for pilots in their fittest years for heavy war-fighting capability.

"At the same time, it appears that the goal of a young fighting force has become an official excuse for not providing alternative pilot career paths. Would a "limited-duty" flying corps really be an impossible fit alongside the generation of officers raised in the 1980s? Would the service as an institution be irreversibly damaged? I think that the Air Force will eventually be forced to adopt some version of a limited aviation-career path. Why not start now, before an uneven, misapplied bonus structure alienates other career groups?" (42)

THE "PUSH" OF REDUCED FLYING HOURS AND INSUFFICIENT TRAINING

This was probably one of the major factors which boosted attrition in the late seventies. However, as the resource cutbacks multiply and fewer Regular Component organizations exist to respond to the short-notice, turbulent and non-forecastable scenarios which must necessarily remain the forte of full time personnel, the risk that this factor will again crop up continues to mount.

As the US DOD faces its first significant cutback scenario in a decade, overlapping roles are already escalating

interservice rivalries. The Navy and the Air Force appear ready to square off over the role of long range power projection. The Army and the Air Force voice mutual concerns over deep battle interdiction weapons. As tempers mount and resources dwindle, the dictum to "train like we fight" gets more and more difficult to maintain. Senior USAF leaders must continue to fight for realistic training and sortie scenarios which continue to push the pilots to the appropriate limits. To do this costs money. To maintain it in the era of "violent peace" takes will and courage. Col Foglesong observed that, even today, units with visible, realistic and credible roles have better pilot-retention rates than those "caught up in the paper chase of completing peace-time requirements." (43) The bad news here is that peace-time stances will continue to accumulate, and those units employed in "war-like" scenarios will shrink appreciably.

THE "PUSH" OF THE FLOW

It is a disheartening observation to note that we are losing some pilots simply because they feel "everyone else is getting out, so I guess that I should too". When this phenomenon occurs it becomes very obvious that the USAF is doing a poor job of selling its careers and the benefits of its professions. Many of the current USAF personnel appear to feel that moving into new fields or roles every few years is disorienting and de-motivating. Yet many vocational experts now

insist that anyone just entering the workforce should be prepared to retrain for several mini-careers during a 40 year career-span. So why is this same process within the Air Force castigated and viewed with displeasure? One of the major pluses to this profession should be that very idea; it should be a challenge to look forward to new jobs and new adventures, not a drawback. There are many advantages in an Air Force profession which members seem to be quick to discount and loathe to defend. Seeing the world, as well as all of the widest dimensions of this grand country, should be sold as a bonus to military service, not a drag. One man's junk is another man's treasure, but it would appear that the USAF leaders are not doing a very good job selling the pluses and bonuses of an aviation career to the younger American generation.

And this, too, should be raising another big warning flag for current USAF leaders. "One reason the Air Force has so few black pilots is that flying no longer is portrayed as a glamorous adventure." (44) The target population is getting smaller, the "operational" feeling is fading, the "glamor" is dimming, and the competition is offering far more money. Do senior USAF leaders see the situation as being serious enough to need more action?

From the majority of "pulls" and "pushes" summarized above, it would appear that the USAF has recently come through a very similar stance to that which occurred in the early 1980s. The increasing rates of attrition have recently been staved off by

the sudden promise of a massive drawdown in the USAF structure; however, the relief from this drawdown may only be temporary. And when the attrition problem returns next time, it will come back with a vengeance. This time the strength of the major "pull" factor, the major airlines' insatiable appetite for well-trained pilots, is far stronger than the major "push" of the late 1970s, the rejection of the Vietnam failure. This time a probable drop in motivation will be coupled with the strong draw of long term economic benefits. And a generation now in their late twenties and early thirties, who have recently displayed a strong longing for security in an increasingly unstable world, will find a strong draw to this new magnet. The USAF of the 1990s will find itself extremely hard pressed to compete with these powerful draws in the upcoming decade.

So the USAF must take full advantage of this current respite from heavy attrition and must quickly bear down on implementing an improved personnel management system. This revised system must strive to generate as few false expectations as possible. The recent attrition has been serious enough to create unpredictable stresses which have de-stabilized current strategies appreciably. However, the plans of the next few years and the ensuing shrinkage in demand should allow the pilot career folks to get things back into proper perspective. However, if the current staffs fail to use this upcoming breather properly, there is far deeper trouble ahead.

To give some idea of the effects which high attrition can

cause in the longer term, we next examine the current situation facing another NATO country which shares many of the same "pulls" and "pushes" on its pilot population.

CHAPTER VII

THE CANADIAN EXPERIENCE

CANADIAN FORCES ORGANIZATION AND MILITARY OCCUPATION STRUCTURE

The Regular Force Component of the Canadian Armed Forces (army, navy and air force) currently consists of about 85,000 positions. Roughly 75,000 of these slots could be called "operational" positions, and the other 10,000 form a fluid training list which is used to keep the 75,000 "operational" positions properly manned. The Officer/Non-Commissioned Officer split is roughly 17,000/68,000. There are approximately 40 separate Officer Military Occupations (MOCs) and about 100 NCO Military Occupations (MOCs) in the Canadian Forces Organization Structure.

Each "operational" position is classified by one of three designations, each of which very generally describes the nature of the work performed by the occupant of that particular position. These designations are HARD, GENERIC, and ANI. A HARD position is one in which the job is considered totally unique to one particular occupation or trade or MOC. A good example of a PILOT HARD position would be a single-seat-aircraft

cockpit position. The second class of position is designated GENERIC. This position could be manned by a member of any MOC which belongs to the identified Generic Group (or general group of MOCs massed together by some common bond, which was assigned the manning of that particular position i.e.g., the various engineering MOCs all belong to a Generic Group called Engineering General). A good example of an AIR GENERAL position which might be manned by any member of that particular Generic Grouping (i.e., a Pilot, a Navigator, an Air Traffic Control Officer, or an Air Weapons Control Officer) would be a Watch Officer on an Air Base Operations staff. The last class of position is designated as an ANY position. This type of position could be manned by any generalist officer MOC. A good example of an ANY position which might be manned by a pilot would be a recruiting officer position in one of our recruiting centers.

There are several other quotas which add some more numbers to each Military Occupation's list of positions-to-be-filled. Each year every MOC is assigned several year-long language training slots (either French or English) which must be filled in accordance with governmental direction. There are also positions in the various Project Management areas which are considered to be temporary but must be manned during the duration of the acquisition of a new piece of equipment. And last, but not least, other departments of the Government often "borrow" a member of a specific MOC to do a specific job for

them where military expertise is needed but there is not requirement for a permanent position (these positions are called "secondments" in Canadian terminology). For example, Col (CAF) Marc Garneau was seconded to the Dept. of External Affairs during his stint as an astronaut in the NASA program.

So each MOC's manning bill consists of the total summation of the quotas of several different types of positions currently listed formally in the Canadian Force's Organization Structure, as well as some other miscellaneous positions which must also be manned. The total manning bill will consist of all of the HARD positions therein, a portion of the GENERIC positions for each generic grouping to which the MOC belongs, a portion of the ANY positions designated by manning formulas devised by the Directorate in charge of Production Control and Requirements (DPRC), several Language Training Slots, several Project Management Slots, and any Seconded positions. The sum total of all of these numbers is called the TARGET STRENGTH for each MOC, and it is this particular number in each rank which the various Career Managers manage. (45) This number also controls production and promotion quotas. It is the "sine qua non" for the Career Managers. Their management scheme is driven by the mismatch between Target Strength and Trained Effective Strength (the total number of trained and ready pilots at their disposal).

Over the last several years this Target Strength has grown slightly for the pilot MOC, and the present CAF occupational structure demands a manning total of approximately 2250.

structure demands a manning total of approximately 2250 operational trained and ready pilots. (45)

PILOT STRUCTURE AND CAREER MANAGEMENT

The Canadian pilot structure differs significantly from that of the USAF in one respect. Canadian Air Command (the Canadian equivalent of the USAF) pilots fly all of the aircraft in all three components of the CAF (i.e., Kiowas, Hueys and Chinooks to support the Army operations; Sea Kings and Auroras -CAF version of the F3- to support Navy operations; and the other pilots fly to support "pure" Air Force operations). This pilot structure breaks into a rank hierarchy of about 60 Colonel positions, 165 Lieutenant Colonel positions, 500 Major positions, and some 1500 Captain/Lieutenant positions. The Colonels (Cols) and Lieutenant Colonels (Lt Cols) are considered "controlled ranks", which approximates to "one man, one job" management and control. This means that the next Major due to get promoted to Lt Col in the Pilot MOC cannot be promoted until a vacancy for a Lt Col demanding the Pilot MOC appears somewhere in the formal Canadian Forces Establishment. The Pilot Cols and Lt Cols are career managed by one separate Directorate in NDHQ. This same Directorate (Directorate Personnel Careers <Colonels>) also career manages all of the other Cols and Lt Cols in the Regular Component of the Canadian Armed Forces, be they army, navy, or air force.

The two-thousand-plus line pilots (ranks of Maj and below) are managed by a very busy cell of one Lt Col, one Maj, three Captains, and a small clerical staff in NDHQ. These five key players manage a shortage of operational pilots which has fluctuated from 0 to 250 over the past 10 years, but has historically ranged in the neighbourhood of 150 vacancies. However, last year's plunge beyond 180 short, plus the dire predictions of much worse to come, finally convinced this management group to formally call for a "Get Well" program to be initiated for the Pilot MOC. Such a program is a formalized step in the CAF personnel system and aims to focus extra attention, resources, and whatever else may be required on this specific MOC's problems. The ultimate goal is to reduce the critical mismatch of strength versus requirement to more manageable proportions.

THE CANADIAN FORCES FORMAL "GET WELL" PROCEDURES

Over the last 75 years the various components of the Canadian Forces have often faced shortages in various military trades or classifications or occupations (MOCs). One of the results of the three services being integrated into one structure in the late 1960s was the creation of a centralized personnel management system. Since all of the former management systems had often faced the problems of critical shortages in specific trades/classifications/occupations/MOCs, the various procedures which had been devised to cope with this aggravating

and frustrating problem were amalgamated and formalized into a single standard operating procedure (SOP). A copy of the overall process is enclosed as Figure 2 and is more thoroughly explained in Annex A to this DAS (A list of the Canadian acronyms and department titles is included in the Glossary to this DAS, which starts on page 86).

It was not difficult to convince senior management that this particular problem was a serious one, and authority was quickly granted to set up a Pilots' Get Well Working Group. The group assembled in NDHQ in mid-July 86 and quickly reviewed the basic problem. Initial direction included the caveat that no new resources could be allocated in the working group's solution (i.e., no increases in training or management structures and no pay bonuses!). The chairman and all members quickly brainstormed the various issues. Then, in accordance with the normal guidance contained in the formal "Get Well" procedure, the group was divided into two sub-groups. These sub-groups were directed to examine the more specific aspects of the problem from the viewpoints of both production and attrition.

The results of these initial studies were not encouraging. Neither the training sub-group nor the attrition sub-group were able to devise any earth-shaking results which would make the problem dissolve. Only a minor number of short-term solutions became evident, and most of these had significant drawbacks, or breached the "no new resource" mandate of the initial working groups.

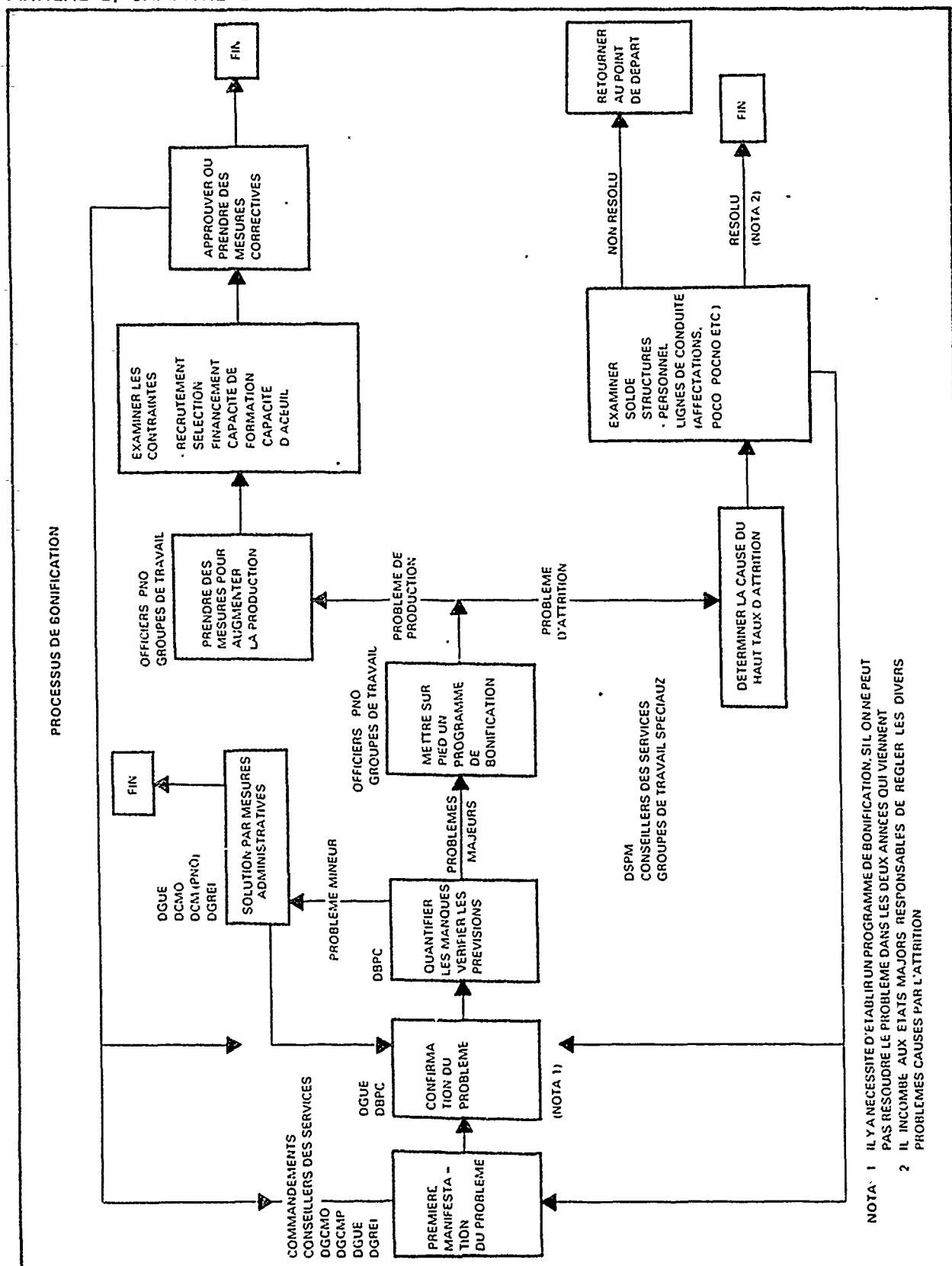


Figure 2B-1 Processus de bonification

(English on reverse)

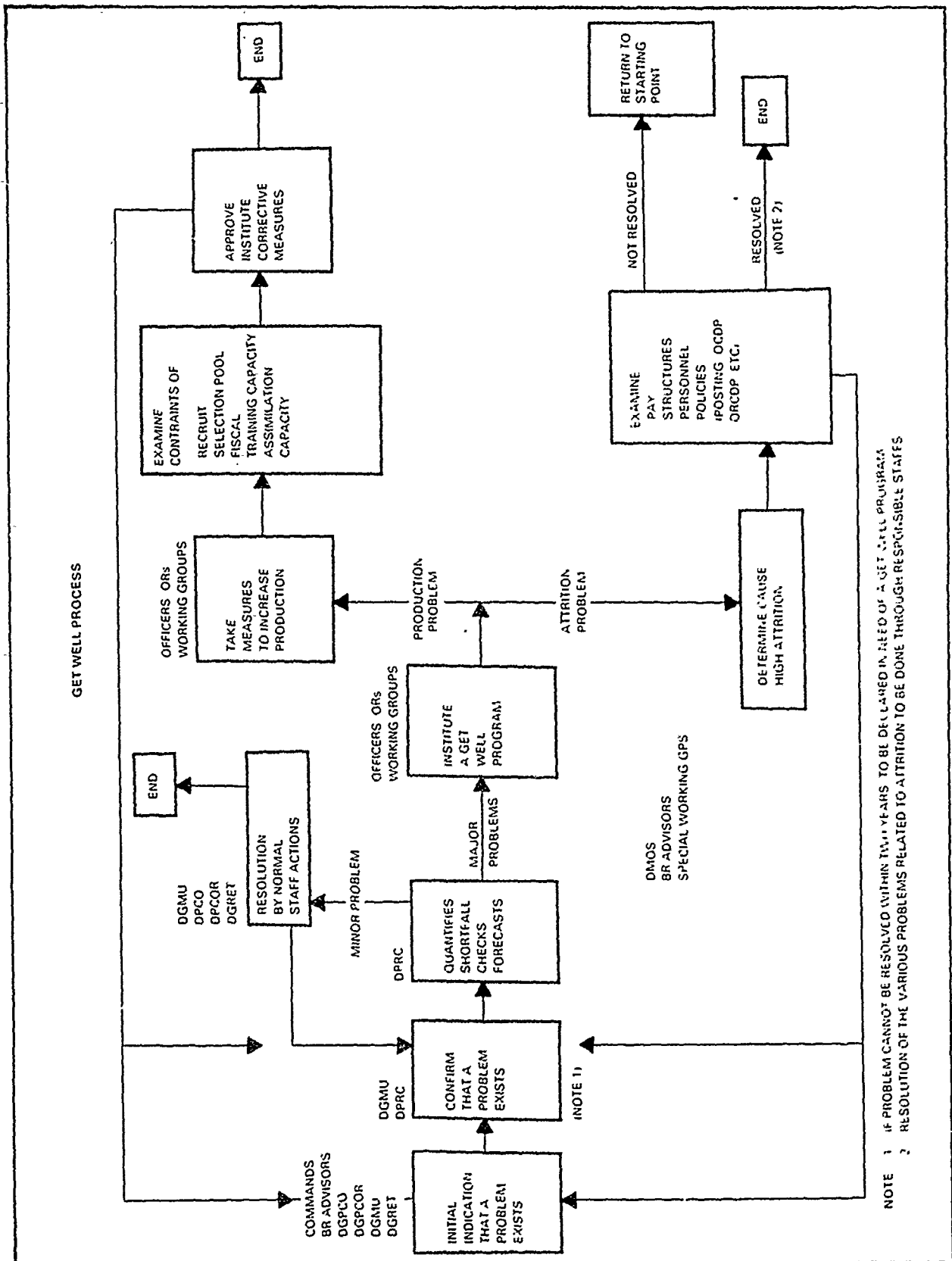


Figure 2 Get-Well Process

One controversial solution investigated by the attrition sub-group included revising the terms of service for all pilots to require a one-year notice-of-withdrawal prior to release. (In the Canadian Forces, once a member is entitled to an immediate annuity on retirement, this member can request release at any time by giving 30 days "notice", and expect to receive release within this time frame; unless, of course, the country is placed into a state of national emergency during the 30-day "notice" period. (These terms usually apply to anyone with 20 or more years of service.)) (This privilege often leads to "surprise quits" and much reactive management, which is often extremely disruptive to other pilots in the system.) The obvious drawback with this proposal was possible short-term gain for probably long-term pain. The attrition sub-group's opinion was that longer-term pilots who had remained faithful to the original system would now feel betrayed by this arbitrary switch of their terms of service to counter the actions of their impolite or short-sighted brethren. This action might solve a few problems in the short term, but would probably just push the problem further down the line, with the added drawback of alienating faithful pilots.

Longer-term solutions debated by this group included lengthening the pilot service commitment after wings graduation (currently five years), and reviewing the entire list of Pilot positions in the Canadian Forces Establishment to re-assign non-essential, non-flying jobs (i.e., the least essential of the

Generic and Any positions currently assigned to Pilot/ to other MOCs. One of the major handicaps with this proposed solution was that most other officer MOCs were also under their Target Strengths, so assigning them new jobs would simply pass the manning problem from one Career Manager to another, accomplishing little in the short run and seriously imbalancing the Canadian Forces Establishment over the long term.

The training sub-group could not provide much encouragement either. The Canadian Forces pilot training system is resource constrained to the production of roughly 150 pilots per year. Increasing this output for short-term benefit would lead to another long-term cost, since the required extra flying by training aircraft would eat up the remainder of their useful lives earlier than replacement aircraft were programmed to be acquired. However, the trainers were at least able to point out that resolution of some instructor manning difficulties in the various flying training schools would help to peak the system and ensure full output of student pilots in future years. The trainers also noted that Canadian personnel research staffs were actively engaged in several intensive studies of pilot selection procedures to ensure that everything possible was being done to maximize production without compromising training standards.

Reports to senior management hence indicated that the major problem could not be resolved within existing resource parameters. This resulted in the creation of a separate high level Steering Group (at the Major General rank) to review the

problem and recommend long-term solutions. Their report was consequently summarized in a briefing which was presented to the Chief of the Defence Staff (our highest military member) by the Commander of Air Command (in effect, the head of our Air Force) on 16 Feb 89. (46)

This briefing noted that the high level Steering Group concurred with the majority of the views of the lower level groups, and proposed a Formal Pilot Get Well Program, to be created with extra resources and a new mandate. This proposal was subsequently approved by the CDS, and a new, full-time Pilot Get Well Program office of two Colonels (one Reg Force and one Res Force) commenced work early in 1989.

THE CANADIAN PILOT FORMAL "GET WELL" PROGRAM

The order creating this new high-power team included a demand for the immediate production of an extensive public relations briefing. This brief was to cover all pertinent aspects of the current Canadian Armed Forces pilot manpower situation, as well as a fresh action plan and a comprehensive proposal for future action. This public relations briefing was then to be presented at all major flying units during the summer and fall of 1989. One of its primary objectives was to relay the message to all "line pilots" that all supervisory levels with the CAF hierarchy were well aware of the significance of the present pilot attrition problem. A second part to the message was that concrete action was being initiated at the

highest possible levels to attempt to mitigate the worst effects of the present shortages.

This briefing was produced in the spring of 1989, and several of its major recommendations were quickly staffed through normal channels to be considered by senior resource boards shortly thereafter. Major recommended and accepted changes to pilot management routines included substantial increases in the amounts of flying allowances, as well as the authorization of continued flying pay to some 90 percent of pilots whenever they were posted into ground positions. This was an obvious attempt to counter the major dissatisfier that previously occurred whenever a pilot was sent to ground. Not only did a staff pilot lose the joys of the cockpit, her or she also lost flight pay, too. This double-whammy was the source of many bitter complaints in the last few years.

This formal "Get Well" group also recommended that Primary Flying Training screening (the initial 35-hour screening process) should be passed lock, stock and barrel to civilian industry. This transfer would substantially reduce the required CAF pilot inventory by some 50 pilots who currently perform this "ab initio" screening and training.

Minor recommended changes included nearly all of the ideas generated from the earlier sub-groups. A substantial increase in the annual Lieutenant-to-Captain promotion quota was recommended, along with a suggestion that the post-wings duty requirement (same as ADSC in the USAF) be raised to two flying

tours (effectively 8 years) after graduation. This committee also recommended initiation of further study on a proposed dual-stream training system (pure helicopter and pure jet), and the creation of a new multi-engined school to train those pilots destined for the multi-engined community. The team also recommended a further review of the CAF establishment to ensure that pilots were only sent into ground staff positions when it was considered absolutely essential. Several quality-of-life enhancements were also proposed; more use of over-ranking would be permitted to reduce posting turmoil, tour lengths would be extended whenever possible, and voluntary unaccompanied postings would henceforth be encouraged when this procedure was convenient for both member and spouse.

The briefing was first presented to the NDHQ pilot population on 10 Jun 1989. Briefings at all of the major Air Command units were completed last fall. The aircrew allowance for grounded pilots commenced 1 Oct 89. Proposals for switching the primary flying training program to civilian industry are currently being developed by a special projects team, as is the proposal for a new multi-engined flying school.

Only time will tell whether these actions will suffice to stem the Canadian attrition tide; however, initial indications are not promising. According to both DMMO and the appropriate Career Manager estimates, the current CAF pilot population is approximately 75 pilots further below its preferred manning level or target strength this year than it was at the same time

point last year. Current estimates call for a shortage of approximately 300 pilots by 01 Sep 90. (47) The outlook remains grim.

The numerous causes of pilot attrition and dissatisfiers identified in the various Canadian studies conducted during the 1980s are reviewed extensively in Chapter VIII, where they will be compared to the US list and analyzed accordingly. Suffice it to say here that the majority of the strongest reasons for quitting, and being dissatisfied with "the system", are common to both societies. Hence, most of these difficulties should probably be considered systemic and be treated as "givens" in any future attrition analysis. Comparison of the two lists will give some indication as to which factors/dissatisfiers in the pilot attrition formula are system-unique and which are service-unique, assuming that the North American pilot population is reasonably homogeneous, has similar wants and needs, and is motivated to a similar degree in the two air forces.

CHAPTER VIII

COMPARISON OF CANADIAN AND AMERICAN SITUATIONS

In several ways, the Canadian system can be compared to the American one using a rough scale of 1 to 10. The Canadian system currently calls for roughly 2250 trained pilots to be at full strength. (48) A May 1989 Portrait of the USAF lists the 1989 operational strength of pilots as 20,338. (49) The General Accounting Office report of 1 June 1988 quotes USAF estimates that the USAF pilot population will drop from 22,929 in FY 88 to 21,041 in FY 92 (this includes UPT personnel). (50) (Note that these estimates were established well before recent reduction plans were even being conceived.) The Canadian Airline Pilots Association currently represents about 3500 active pilots in Canada (it is not a compulsory membership organization for smaller Regional Carrier pilots). The National Defense Transportation Agency estimated that the current commercial pilot population in the US at the end of 1987 was about 56,500. (51) Canadian Armed Forces Pilot Career Managers worry about a projected shortage of 200 to 300 pilots in the next few years. USAF predictions prior to "the Wall Fall" were as high as 2900 pilots by 1994. (52) Hence the scale of approximately 1 to 10 in a similar social and economic environment is probably

suitable for rough comparison purposes.

The Canadian and American situations are similar in many ways. For comparison purposes, the author will align both lists with the parameters presented to the Canadian Chief of the Defence Staff (our top ranking military leader) by the Commander of Air Command (leader of our Air Force) in his depiction of the Canadian pilot attrition situation on 16 Feb 89.

THE CANADIAN SITUATION

A. Causes of Attrition

The main reason given was the opportunity for a better quality of life due to increased stability and security, and a large reduction in the probability of disruption due to postings and job changes.

Continued service was not perceived to be a viable option when compared to outside opportunities.

Some pilots on older terms of service were given an offer to change to newer, more advantageous terms, but the offer came out long after they had been disenchanted by their perception as second class citizens.

Basic pay was not considered a major factor in most resignation decisions, although departees acknowledged the potential for better long-term financial gains while flying with the airlines.

b. Major Dissatisfiers

A Major demotivator was the perception that little service consideration was given to family stability, employed spouses, and the effect that multiple moves had on their childrens' education.

Service working conditions were not conducive to family relationships. Complaints centered around too much time away and too little time off.

There was an element of insecurity inherent in the new terms of service which could allow the military service to release members after 20 years of service. The attitude was prevalent that many members did not want to face a forced job change at age 40 with young families to support.

Many members on old terms of service with Compulsory Retirement Ages of 45 or 47 would have converted to newer offers of engagement (which would let them continue service to age 55; if these offers had been forwarded at the same time as those offered to members under newer terms of service.

The gypsy life-style penalized members by not allowing them to build up financial equity in a home due to numerous past and future moves.

The perception persisted that performance evaluation and career progression were both based primarily on performance in secondary duties which, in most cases, were not even related to primary flying skills.

Many pilots stated a total preference to stay flying, with

no desire and no incentive to accept non-flying staff functions.

There was a perception of treatment as second-class citizens, due to the use of parsimonious rates for meals and expenses on Temporary Duty trips and the idea that the Air Force gave little consideration to the provision of "normal human comforts".

There was a strong perception of very limited opportunity to negotiate one's own career.

A final major dissatisfier included the perception that the return of contributions and retirement bonuses presented at the end of a Short Engagement (basically a nine-year term after commissioning) amounted to a \$60,000 taxable bonus which would not be countered by any comparable bonus to stay on and face the chance of forced retirement at the 20/40 point (this was usually construed as an oblique complaint to the lack of a "Re-up" bonus in the CAF system).

C. Recommendations

A major recommendation included the introduction of a new "non career" term of service to be offered to those pilots who expressed the sentiment of "fly or die". This term would include provision for a continuous flying assignment, with no possibility of promotion.

Another recommendation suggested return to a fixed pilot salary to minimize the negative impact of being forced to take a ground tour (this recommendation was partially implemented by authorizing the pay of "Aircrew Allowance" to approximately 90

percent of pilots currently pinned in non-flying staff positions).

The presentation recommended the annotation of non-flying rated slots as "augmentation" positions which would entitle the incumbent to receive "Aircrew Allowance".

Several initiatives to improve quality of life issues were suggested by providing more benefits to family members.

The presentation recommended adjusting Temporary Duty allowances to make them comparable to current industry and other governmental department rates.

Initiatives were also suggested to improve relocation benefits with such things as a guaranteed home sales plan, better family re-union allowances (an allowance to members posted away from their families which allowed them return visits home), better education compensation for separated dependents, employment assistance for transferred spouses, and increased separation allowances.

Last, but not least, longevity bonuses and home purchase assistance on retirement were also suggested as possible ways to increase retention.

THE USAF SITUATION

The USAF Military Personnel Center-Retention Division has conducted numerous studies on the reasons USAF pilots give for leaving the military service:

A. Causes

A major cause for separation was the desire for greater geographic stability. Airline pilots probably move once or twice in a career and get a choice when given an "offer".

Another major cause was the perception that the USAF pilot was losing out financially to his airline contemporary.

Career management was cited as a major cause for separation. Pilots perceived little say in future assignments. This particular factor is exacerbated even further in times of shortages, when shrinking numbers of pilots have to cover more and more taskings.

The continued erosion of benefits for both military personnel and their dependents was listed as a major cause for release.

The inability to fly throughout a career was often cited as a major cause for separation by "fly or die" pilots.

B. Major Dissatisfiers

In molding its members to be future leaders, the USAF continued to insist on considerable PME during a member's tenure. Much of this training was not perceived to be directly job related and of little use in flying airplanes.

Operational units were constantly "under the gun" for ORIs and other inspections. This was often perceived as a "lose-lose situation" involving copious pressure, considerable embarrassment over mistakes, and little gratitude for jobs well done.

Additional duties continued to be a USAF custom, but they were also perceived as a major pain.

Very limited opportunity to plan ahead was often cited as a major irritant. Planning of family social events and moral support to dependents was cited as being nearly non-existent, due to the exigencies of service life and the unpredictable nature of air force demands.

Inadequate compensation on moving was often cited as a major dissatisfier. Although the USAF now moves fewer people than it did in the past, the perception remains that many costs of transfer are still being borne by the families involved.

Dissatisfaction with leadership above Squadron level was still cited as a major complaint. The call remains that many of "their seniors, they say, are too busy looking up to look down."
(54)

C. Recommendations

These recommendations are summarized from the Air Force 1989 Issues Book and Col Foglesong's article on pilot attrition:

ACIP/89 has been signed into law and the appropriate funds are budgeted for future fiscal years. It is hoped that this new financial bonus plan will help to resolve the pressure of the disparity between USAF and commercial pilot salaries for several years.

ASDC has now been increased to 8 years. This will also give a longer period of stability to future personnel planners over the longer term.

The Commander's Flash Message program is resulting in quicker and less garbled communication from top to bottom.

The Pilots' Electronic Message System should also help to clarify and resolve issues and give members more contact with their personnel management staffs.

Further reduction in PCS moves, increasing weight limits, as well as increasing temporary living allowances, should help to reduce some of the irritants associated with moving.

The Squadron Commanders' Involvement Program is helping to reduce the perceptions that "the system" is very impersonal and unresponsive to individual needs. (53)

Use of the "operations career management field" to limit non-fly rated slots acknowledges that too many pilots are posted into non-flying slots. The motivation remains to design satisfactory alternatives.

Increased spousal employment counselling is also a welcome addition, if enough resources are devoted to developing an effective spousal job-search network.

Re-examination and updating of "what-it-takes" to be a pilot will help to hone personnel selection methods and reduce the number of training failures, as well as reducing the number of mismatches between aspirations and realities.

DISCUSSION

There are many common threads woven between the two lists. It should come as no supreme surprise to find that the primer.

cause of attrition in both countries is a desire for increased stability and less "forced movement". The many "hassles" generated by systems which demand that members pick up family and belongings and move again and again is bound to extract a "cost of doing business" over any extended period of time.

This increased desire for security and a higher quality of life is no doubt reinforced by the natural progression which occurs as our members grow older, acquire families and children, and modify their outlooks on life. Many of the early departees (the 30 percent mentioned earlier in Chapter VII) probably modify their expectations early in life, and are increasingly irritated by further orders to move or change jobs. They can hardly wait for the end of ADSC to get more permanently rooted somewhere with increased stability and less turbulence. Seeing this group depart offers minimal heartburn to a system which must constantly cope with turbulence and uncertainty and keep the gypsy mentality alive in its military forces.

This yearning for increased stability is being exacerbated by several other social phenomena in modern American society. Many of the new spouses of young line pilots are no longer content to focus on a one-career family. They, too, now join marriages with career expectations and are no longer prepared to dutifully accept the "root ripping" PCS rituals of the USAF and other military organizations.

There appears to be very little that can be done to counter this particular tendency, other than extending personnel in the

same geographic areas for longer portions of their careers. The spousal employment network is another initiative to try and minimize this particular dissatisfier. Along a parallel line of reasoning, the DAF has recently introduced the concept of Family Support Centers in many locations where duty personnel are often away and their spouses require support and assistance. All of these initiatives gnaw at the systemic problem, but military organizations will never be able to completely eliminate this dissatisfier.

However, there is also an element of "time lock" in our modern society which deserves some attention as we look to the air forces of the future. Perhaps a future system could mold each pilot's career along the lines that he or she remains mobile and available for service up to a clearly identified and mutually agreed-upon time point. For example, let's say that the USAF and member agree that he or she will remain free and willing to serve in remote and out-of-country locations early in one's career, say until one's children hit their teen-aged years. Then, Family Z will be given a preference for stability for X years and will be located in a specific geographic area. By tying this less-mobile time period to start positions, it is conceivable that the USAF could cater to two of its biggest and most persistent de-motivators at the same time. The obvious counter to this individual career management is the personnel and resource bill required to administer it. However, the USAF could afford to spend a huge amount on this particular

management scheme if they were able to reduce pilot attrition substantially and devote the sum of all of the associated training costs to career management instead.

The threads of financial security and money also wind their way through both lists. Both USAF and Canadian authorities have agreed that the military cannot hope to compete with the airlines on an equal pay basis. Roth and Neilsen calculated that it would normally take about five years for a member leaving the USAF to recover the financial benefits that he or she had lost from giving up a higher-paying job to join an airline at minimal wages. (55) However, after that five-year recovery period, there was no possible comparison between the two careers as far as future earnings were concerned. The USAF will never be able to compete with maximum commercial airline salaries, which range from \$150,000 to \$165,000 for their top earners. (56)

However, the military community can compete with travelling expenses which more closely approach those paid by equivalent civilian firms. The battle to keep Temporary Duty allowances within realistic ranges is a long standing and never ending one. It magnifies in importance as resource bases shrink. It is far too easy to accept the gnawing effects of inflation and higher prices on Temporary Duty recipients than it is to face operational cuts. But both of these aspects are equally important and the longer-term benefits of adequate allowances will always outweigh the short-term operational "needs" of a

peace time environment.

It remains very difficult to properly balance salary ranges to keep a balance between "too much" and "not enough". The Canadian Lt Col who managed the 2000 Canadian line pilots during 1987/88 insisted that "money isn't everything, but enough of it tends to make up for many of the other minor frustrations which nibble away at morale and create dissatisfaction amongst the working population". (57)

There were several other threads common to both populations. Several quality-of-life issues surfaced on both lists. It would appear that the twin-edged sword of getting the job done while still giving the troops sufficient quality family time will ever remain a mighty challenge. Frustration with the career management system was also quite evident on both lists. It is interesting to note that the perception of having little say over one's career is just as prevalent in a 2000 pilot structure as it is in one which is ten times as large. Increased efforts to keep communication flowing from top to bottom and a "starting block" briefing which lists and reinforces realistic expectations appear to be the only increments which one can mention here. Plus the fact that one of the most basic leadership tenets continues to be to look out for your troops before you look after yourself.

Complaints about leadership constantly being focused up the chain instead of down will continue to crop up in any organization where performance is considered the primary

characteristic evaluated to determine promotion. Echoes of careerism and "every man looking out only for number one" continue to haunt both systems.

There is also a common complaint in both systems that far too much of the assessment and promotion process for a skill-based profession is currently being based on performance in non-flying duties. The new USAF evaluation format supposedly tackles this complaint, but again it is far too early to say whether or not the cure is worse than the disease.

Both the CAF and the USAF are currently reviewing establishment entitlements in a further attempt to weed out unnecessary non-flying rated slots. And both training systems have recently taken formal steps to increase the pay-back time required for training which is valuable and directly transferable into civilian employment.

The last major common theme on both lists involves the popular observation that many pilots would have remained in the CAF or the USAF for "a full career" if they had been allowed to continue to fly for the duration of their employment. The basics of a dual track system were described in Chapter VI. The merits of such a "contract system", uniquely designed for pilots, could probably be set up to be sufficiently attractive to enough pilots that both Canada and the US could retain another 15 to 20 percent of their retiring pilots without clogging cockpit positions and reducing the system's flexibility. This supplementary force would effectively knock the steam out of a

crippling 15 percent shortage. It is notable that this percentage involves the same number of pilots which has worried both the CAF and the USAF personnel planners over the last two decades.

However, some of the conditions proposed by Bendick and Jones in their initial proposal seem rather too limiting to be of useful application. Less limiting terms of reference would simply promise and demand that members would continue to occupy cockpit positions throughout their tenure. They would still be liable for any of the Wing or Squadron secondary duties which came up, but these members would not be required to complete further PME (and, indeed, would not be entitled to request it, either!). This new system would require a separate evaluation method to ensure that performance standards were maintained at a high level. There would also be a requirement for a completely separate system for competition for promotion, based on some other philosophy than the "up-or-out" system so that all of these "Contract Pilots" would continue to compete with their peers, but not with the other "Career Stream" pilots.

The added stability that such a body of pilots would give to the CAF and the USAF would go much further than just reducing attrition and all of its' accompanying annoyances. The stability which senior experienced pilots give to their junior contemporaries is difficult to measure but often saves bent airplanes, and even lives, over extended periods of time. Even having one or two formal decision points further along the

chain. those "Contract Pilots" who eventually discovered that there is more to the CAF or the USAF than just flying would be able to rejoin the other career stream, although they would, of course, re-enter the stream well behind their contemporaries.

The Royal Air Force has experimented with a system based along these lines for several years. They formerly maintained a dual track system with a split career decision at the 18 year/38 years of age point. (58) At this point, selected pilots were allowed to stay on in flying billets for the duration of their careers with the full knowledge that chances for further promotion were minimal. This group was paid via a special differential rate which took their extra experience into account. The regular stream pilots continued in the main program, knowing full well that they would have to absorb ground and staff tours as part of their future career development. This system, too, met with limited success, but it offered some relief from a crippling attrition rate for several years.

Last, it is quite evident that some of the major causes of attrition and major dissatisfiers on both the CAF and the USAF list are based mostly on each country's terms of service and hence will remain service unique. Most Canadian problems with terms of service were related directly to the way in which various policies were implemented, and appeared to have little to do with the policies themselves. In 1989, DPCAD (the officers' policy shop) completed an exhaustive study which showed that few, if any, of the junior pilots seeking release

between the end of their ADSC and the nine-year point terminated their contracts at the eight-years-and-one-day point. (59)

Since this was the day when "system-breakers" would first become eligible for this grand "\$60K bonus", (which consists of one month's pay for each year of completed service along with the return on contributions contributed to the CAF pension plan), release at this point would likely indicate a motivation to stay long enough to collect the windfall. But none of the pilots released in this zone had been released on this critical date. Hence, this study concluded that one of the major dissatisfiers identified in the Canadian attrition studies didn't apply to anyone, but it was still listed as a major dissatisfier by a large majority of those pilots departing the service. It is amazing just how these perceptions get started and how difficult they are to extinguish.

The USAF's insistence on PME is system-unique, although this system too is presently undergoing extensive review and modification. However, a somewhat-similar policy dictum in Canada recently began causing consternation through the pilot population. This is the requirement for all officers to become bilingual (i.e., be able to communicate effectively in both of the official languages of Canada: English and French), by 1996, if they aspire to be promoted to Lt Col rank. PME or any compulsory training which all members must complete quickly seems to acquire a bizarre flavor of "ticket-punching", rather than a privilege which is quite unique to the military system

and is regarded quite enviously by many communities in the civilian marketplace.

In summary, this comparison of the attrition characteristics of these two systems, related only by geography and scale of effort, has reinforced the popular view that there are no simplistic solutions to this complicated and involved problem. Rather, it would appear that the current minimize-damage philosophy adopted by both CAF and USAF personnel managers is not one of a matter of choice, but simply one of survival instead.

CHAPTER IX

CONCLUSIONS

Many of the conclusions derived from this study seem obvious and self-evident; however, they will be reviewed here to provide a clear picture of the total situation.

The USAF experienced severe pilot attrition problems at the end of the 1980s. In comparison to the Canadian problem, which currently remains difficult and intractable, the USAF problem appears to be diminished by the prospects of significant and far-reaching establishment cuts which are forecast to reduce USAF pilot demand in the early 1990s.

The most recent skirmish in the USAF's ongoing battle against pilot attrition is decidedly different than the short-term fray fought by the USAF's personnel staffs in the late 1970s. That earlier round was probably partially caused by a bottoming of military morale due to the intensity of the Vietnam backlash. This, coupled with the requirement to maintain and use outdated equipment, badly crippled the spirit of the USAF pilot corps. These demoralizers were reinforced by unrealistic training standards and resource cutbacks which went deep enough that they challenged such basic USAF philosophies as aircrew proficiency and flight safety. (60) The aircrew reacted

in a predictable manner, voting with their feet.

In contrast to this earlier situation, this latest round results primarily from the explosive growth of the North American commercial aviation industry through the 1980s, and this expansion promises to extend through the 1990s. In the 1970's manning depression, USAF policies and management had a limited effect on the problem; this time the USAF has virtually no control whatever over the situation, other than praying for a downturn in the North American economy.

The earlier hemorrhage was healed by a new administration which entered government with the political will to return the US armed forces to the prominence that they held just after WW II. The latest round is presently being buried under a demobilization of this same military machine. A 15 percent manpower deficit may appear to become a 10 percent surplus in very short order. However, this does not obviate the senior hierarchy from managing this new transition very carefully indeed, for there is still much danger in the offing.

There remain several common themes running through both the CAF and USAF attrition patterns. Many pilots continue to leave the forces because they seek greater stability in their lifestyles, and they perceive that they can enjoy a better quality of life outside of the military organization. The present pull to the airlines is strong, deep, and is predicted to continue throughout the next decade. The military hierarchies recognize the futility of attempting to compete

financially with the airlines, so they must henceforth concentrate on other strategies to motivate and hold their people.

There remains a strong perception among the departing pilots that "the system" is largely impersonal, that "the system" doesn't care about family life or conditions of employment, and that the "big leaders" really don't care what is happening, as long as their own personal careers continue to drive upwards. There are strong signs in both organizations that communications problems continue to contribute to a systemic malaise. And last, but not least, many of both countries' departing pilots get frustrated by systems which won't let them fly throughout their career, so they move to a system that will (even if the daily thrill is limited to getting an aircraft off the ground, engaging a Flight Management System, maneuvering up/down at 1000 feet per minute, and watching the autopilot do ILS approaches).

In one way, it is unfortunate that "peace breaking out all over" has clipped this recent round of attrition in mid-cycle. It would have been most useful for future USAF leaders to see whether or not the simplistic solution of ACIP/89 really contained enough of a financial balance to stem the flow to the airlines. To repeat the gist of an earlier quote, "Money isn't everything, but enough of it overcomes many of the small dissatisfiers which the military naturally seems to grow." (61) For the command structure of the USAF, is there now enough of a

balance between money and the other benefits of a USAF career to offset that powerful draw to commercial aviation? If the answer is "no", the USAF will face a new round of fierce attrition in the mid 1990s.

However, it appears that this present situation offers USAF command authorities and their AFMPC staffs one extraordinary opportunity to seek out and implement new policies and strategies which will keep the USAF a vibrant and motivated organization throughout the upcoming decade. That Chinese character denoting crisis as both danger and opportunity seldom described a situation more appropriately.

CHAPTER X

RECOMMENDATIONS

The upcoming establishment revisions, structure modifications and resource restrictions offer ample opportunity to do many great things; conversely, they also offer ample opportunity to derail many of the things that the USAF already does well. The need has never been greater for vision, optimism and endurance.

As the USAF draws down and retrenches, some unit movement will become necessary to achieve better efficiency. Placement of flying squadrons destined for transfer to the AFRES near urban areas where the major commercial airlines have created hubs will help to ensure that pilot populations will be available to augment those squadrons in the future. If the pilots will not stick to the program, perhaps it is time to take the programs to where the excess pilots are available.

All members of the USAF hierarchy must realize that the USAF will continue to remain THE "main production pipeline" for the commercial airlines during the 1990s. Hence, higher-than-normal attrition of the middle year career groups must be expected over the next decade. Hence, policies must be further adjusted to cater to this ugly fact of life. Reduced

opportunity for promotion and stagnation in rank will probably generate extra frustrations during the upcoming decade. Force reduction policies will have to be implemented very carefully in the pilot population to ensure that an unstoppable exodus in the middle years populations doesn't develop. It just may be that considerable overmanning in these middle ranks and line positions will have to be worked into reduction equations to ensure that rises and falls in the various year groups remain within acceptable levels.

Establishment reviews for those wings and squadrons still scheduled to be operable after Phase I of the current cutback campaign should be examined closely. Aircrew to aircraft ratios on these units will need a rigorous review totally unique to this unusual situation. This type of review must ensure that such quality of life issues as away-from-home-days and compensatory-time-off policies are humanized to the maximum extent possible. Although the military organization has traditionally remained "operationally oriented", a new philosophy of extensively catering to familial needs and wants must now be cultured and encouraged. The maintenance of the morale of the USAF family units must acquire a new and unusual priority in the next decade. It truly is a time for the USAF to bear down on the old philosophy that "people are our most valuable resource". Severe cutbacks to benefits and family support resources will, no doubt, be suggested as easy cures to resource limitations, and these suggestions must be fought off

at least as fiercely as cutbacks to operational capability, if not even more heatedly.

The current mistrust of the personnel system and the malaise of false expectations must be reduced significantly, if it can't be eliminated entirely. Recent communications initiatives have made a significant dent in the suspicions of many line pilots, but there remains a wide spread perception that they are miniature cogs in an enormous military machine.

The concept of a dual-stream system should be investigated and thoroughly analyzed (again--if it's already been re-worked recently). As noted in Chapter VIII, nearly all of the other policies which should aid retention have already been investigated and implemented. Some sort of split-stream career flow, initiated at the end of the ADSC time frame, could have many benefits for any military air force, even if only offered to 10 to 20 percent of the pilot population. These "fly-only contract pilots" would remain cockpit oriented and out of the professional development stream. Then, future PME and other leadership development would fit properly into the career stream and be pointed directly at those individuals who had consciously made the decision to aggressively pursue an upwardly-mobile military career. PME would assume its more natural role as a privilege, rather than simply being perceived as a "royal pain" or a "ticket-punching" exercise. Concentration of PME effort on those pilots who choose to stay with the military and be groomed for future leadership roles has many advantages. And that extra

10 to 20 percent pilot population would probably go a long way to reducing attrition problems of the future.

A final thought: pilot attrition in the USAF has not been vanquished. It has ebbed for now, and will surge again as circumstances change. It remains one of the USAF hierarchy's main challenges to ensure that their personnel staffs keep striving to drive this persistent and irritating aggravation into permanent submission.

"One defends when his strength is inadequate; he attacks when it is abundant." (62) The present cutback situation offers a unique opportunity to attack this attrition problem with new and aggressive personnel policies. Do not sit back and waste this one bonus opportunity. It may not come again!

ENDNOTES

1. Foglesong, Col (USAF) Robert H., "AF mapping a long-term strategy to improve its retention of pilots," Air Force Times, June 19 1989, p.25.
2. Ginovsky, John, "Navigators, copter pilots out of the money," Air Force Times, December 20, 1988, p.4.
3. Ibid., p.25.
4. Ibid.. p.24.
5. Grossman, Larry, "Flying Low," Government Executive, June 1989, p.37.
6. Ginovsky, "AF pilot retention just 36%," Air Force Times , Jan 1, 1990, p.1.
7. Grossman, p.38.
8. Ibid., p.38.
9. Ibid., p.37.
10. Ibid., p.38.
11. Ott, James, "Senate Hearing Focuses On Growing Pilot Shortage", Aviation Week and Space Technology , August 14, 1989, p.56.
12. Ott, p.57.
13. Ott, p.57.
14. Roth, Maj. R Theodore and Neilson, Capt. David C., A Comparison of Military and Civilian Sector Pilot Careers , USAF Academy, Co., Apr 87.
15. Ibid., p.5.
16. Aviation Week and Space Technology (AW&ST), 20 Nov, 1989, p.S10.
17. Ibid., pp.S10-12.
18. Delta Airlines Executives, presentation to AWC International students of class28f 1990 on 8 Feb 1990.

18. Delta presentation to AWC International Officers of class of 1990 on 8 Feb 1990.
19. Roth and Neilsen, p.7.
20. AW&ST, Nov 20, 1989, p.510
21. Correll, John T., "A Little Lower on a Little Less," Air Force Magazine, Jul 1989, p.40.
22. Ginovsky. "New Era," AFT, 1 Jan 1990, p.7.
23. Ott, p.57.
24. Ibid.
25. Foglesong, p.25.
26. Cascio, Lt Col P.B., "Organizing the Air Force: Reserve Components," Managing the Air Force, Interim 1989 Version, AWC. p.22.
27. Rapier editorial column, Air Clues, June 1987, p.62.
28. Ginovsky. "Pilot retention worldwide problem," AFT, 19 Dec 1988, p.16.
29. Grossman. p.37.
30. Foglesong, p.25.
31. DoD statement of 22 Oct 1987, reprinted in AFT, 28 Mar 1988, p.30.
32. Ginovsky. "Panel Found Most Were Unaware of Spouse Policy," AFT, 28 Mar 88, p.30.
33. Bird, Julie, "Persistence pays off in the search for work," AFT, 14 May. 1989, p.15.

34. Nelson, Soraya S., "Bases are closing, and so are their hospitals." AFT, 8 Jan 1990, p.6.
35. AF Magazine Staff Report, "The Assault on MWR," Air Force Magazine. July 1988, p.98.
36. Air Force Issues Book, p.9.
37. Burlage, John, "Military still pays more for moves than civilians," AFT, 16 May 1988, p.10.
38. Foglesong, p.25.
39. Bendick, Capt. G.L. and Jones, Capt. D.J., An Examination of Dual Track Career Management: Current Pilot Attitudes and Cost Analysis, Air University (ATC), AFIT, Wright Patterson AFB, Ohio, Sep 1981, p.101.
40. Burlage, John, "DoD weighs risks of using bonuses to retain pilots," AFT, 19 Dec 1988, p.19.
41. Ibid.
42. Venkus, Col. (USAF-Retd) R.E., "This Is a Family Argument," Air Force Magazine. July 1989, p.75.
43. Foglesong, p.25.
44. Ginovsky, "Tuskegee Airmen see glamour fading from flying mission," AFT, 21 August, 1989, p.3.
45. DMMD, Guide to Manpower Utilization, p.v-viii.
46. Briefing by Comd Aircom to CDS--16 Feb 1989.
47. Telecon Lt Col (CAF) Parker/Maj (CAF) Timmons--31 Jan 1990.
48. DMMD manning data, valid as of 31 Jan 1990.

49. "US Almanac--Portrait of the USAF," Air Force Magazine, May 1989, p.46.
50. Ginoysky, "GAO Forsees Fewer Pilots, Less Experience in Four Years", AFT, 27 June 1989, p.4.
51. National Defense Transportation Association--Draft Pilot Retention Study, p.4.
52. Grossman, p.36.
53. MAC HQ/DPXA Briefing Note--Maj J Leibr--Oct 89
54. Milton, Gen (USAF-Retd) T.R. "Old Men, Young Men and Flying" Air Force Magazine . July 1989, p.59.
55. Roth and Neilsen, p.19.
56. Grossman. p. 38.
57. Lt Col (CAF) Lloyd Campbell
58. Discussion Lt Col (CAF) Parker/Wg Cdr (RAF) Morris 5 Feb 1990.
59. Discussion Lt Col (CAF) Parker/Col (CAF) Hirter 18 May 1989.
60. Foglesong, p.25.
61. Lt Col (CAF) Campbell
62. Sun tzu . The Art of War . Oxford University Press. 1971. p.85.

BIBLIOGRAPHY

LIST OF REFERENCES

Good Book

1. Sun tzu. The Art of War. Translated by S.B. Griffin. Oxford, Oxford University Press, 1971

Presentations

1. Pilot Attrition in the CAF--Briefing by Commander of Air Command to Chief of the Defence Staff--Ottawa, Canada--16 Feb 1989
2. The Canadian Forces Pilot Get Well Program--Briefing by the Pilot Get Well Team to the National Defence Headquarters pilot population--Ottawa, Canada--10 June 1989

Documents

1. The United States Air Force Report to the 101st Congress of the United States of America--Fiscal Year 1990.
2. A-FM-005-002/FP-001-- The Canadian Forces Personnel System.
3. Bendick, Capt (USAF) Gordon L. and Jones, Capt (USAF) David J. An Examination of Dual Track Career Management: Current Pilot Attitudes and Cost Analysis. Air University(ATC), Air Force Institute of Technology, Wright Patterson AFB, Ohio, Sep., 1981.
4. DMMD, Guide to Manpower Utilization. Unofficial handbook produced by DMMD to explain manpower distribution.
5. Moore, MGen (USAF) Burton R. Air Force Issues Book - 1989.
6. National Defense Transportation Agency. A Worldwide Perspective on Commercial Pilot Supply and Demand - 1989-2000. (draft).
7. Roth, Capt (USAF) Russell T. The Determinants of Career Decisions of Air Force Pilots. Cambridge, MA. 1981.
8. Roth, Maj (USAF) R. Theodore and Nielsen, Capt (USAF) David C. A Comparison of Military and Civilian Sector Pilot Careers. USAF Academy, Co. Apr 87.

Articles

- 1.. "US Almanac--Portrait of the USAF," Air Force Magazine, May 1989, p.46.
2. AFM Staff Report, "The Assault on MWR," Air Force Magazine, July 1988, p.98.
3. Bird, Julie, "Persistence pays off in search for work," Air Force Times, May 14, 1989, p.15.
4. Burlage, John, "DoD backs bonuses for pilots," Air Force Times, December 12, 1989, p3.
5. Burlage, John, "Military still pays more for moves than civilians," Air Force Times, May 16, 1988, p.19.
6. Burlage, John, "DoD weighs risks of using bonuses to retain pilots," Air Force Times, December 19, 1988, p.19.
7. Cascio, Lt Col. P.B., "Organizing the Air Force: Reserve Components," Managing the Air Force, Interim 1989 version, AWC, p.22.
8. Correll, John T., "A Little Lower on a Little Less," Air Force Magazine, July 1989, p.40.
9. Cox, James, "Heavy debt from deals could hurt safety, service, low fares," USA Today, October 6, 1989, p.5B.
10. Dalton, Pat, "AF Pilot Career Said 'Distant 2nd' to Airlines," Air Force Times, June 15, 1987, p.3.
11. Duffy, Henry A., "Airlines: Special airline pilot salary report," Professional Pilot, April 1989, pp.82-85.
12. Foglesong, Col(USAF) Robert H., "AF mapping a long-term strategy to improve its retention of pilots," Air Force Times, June 19, 1989, pp. 24-25.
13. Ginovsky, John, "Panel found most were unaware of Spouse Policy," Air Force Times, March 28, 1988, p.30.
14. Ginovsky, John, "Pilot retention worldwide problem," Air Force Times, December 19, 1988, p.16.
15. Ginovsky, John, "Testagee Airmen see glamour fading from flying mission," Air Force Times, August 21, 1989, p.3.

16. Ginovsky, John. "Target Bonus by Aircraft Type. CEO Urges." Air Force Times, June 27, 1989, p.4.
17. Ginovsky, John, "GAO Foresees Fewer Pilots, Less Experience, in 4 Years," Air Force Times, June 27, 1989, p.4.
18. Ginovsky, John, "Slipping pilot retention," Air Force Times, July 31, 1989, p.3.
19. Ginovsky, John, "New Era," Air Force Times, Jan 1, 1990, p.7.
20. Golightly, Lt(USN) Niel L., "Keep Pilots in the Navy," Proceedings, December, 1988, pp.33-36.
21. Grossman, Larry, "Flying Low," Government Executive, June 1989, pp. 36-39.
22. MAC HQ/DXPA Briefing Note--MAC Pilot Attrition--Maj J Liehr--Oct 89.
23. Milton, Gen(USAF Ret'd) T.R., "Old Men, Young Men, and Flying," Air Force Magazine, July, 1989, p.59.
24. Milton, Gen(USAF Ret'd) T.R., "The Commitment Gap," Air Force Magazine, March 1989, p.103.
25. Nelson, Soraya S., "Bases are closing, and so are their hospitals," Air Force Times, January 8, 1990, p.6.
26. Ott, James, "Senate Hearing Focuses on Growing Pilot Shortage," Aviation Week and Space Technology, August 14, 1989, pp. 56-57.
27. Ott, James, "Trends and Shortages: The Pilot Shortage," Aviation Week and Space Technology, November 20, 1989, pp. 58-512.
28. Ott, James, "US Military Facing Pilot Shortage as Commercial Industry Expands," Aviation Week and Space Technology, June 13, 1988, pp. 103-104.
29. Rapier editorial, "The pilot shortage- Is it self-inflicted?" Armed Forces, June, 1987, p.245.
30. Venkus, Col (USAF-Ret'd). R.E., "This is a Family Argument," Air Force Magazine, July 1989, p.75.

GLOSSARY OF CANADIAN ACRONYMS AND ABBREVIATIONS

Br Advisors--Branch Advisors-senior members of each MOC who advise the personnel staffs on matters relating to their specific MOCs

Air Command--Canadian forces component equivalent to USAF

CAF--Canadian Armed Forces

CCR--Cumulative Continuation Rate--US definition--see page 4

CDS--Chief of Defence Staff-highest military officer in CAF

CFPARU--Canadian Forces Personnel Applied Research Unit-organization in CAF which does personnel research

CFRP--Commissioning From Ranks Plan-entry plan from OR or NCM to Officer status

CRA--Compulsory Retirement Age

DEO--Direct Entry Officer-entry plan whereby member is commissioned immediately upon entry

Comd Air Comm--LtGen who is Commander of Air Command

DGFCO--Director General of Personnel and Careers for Officers-BGen who is head of the personnel branch which manages the CAF officer population

DGFCOR--Director General of Personnel and Careers for Other Ranks--Same as DGFCO, but for Non-Commissioned Members

DGMU--Director General of Manpower Utilization-BGen who controls manning of all positions in the CAF

DGRET--Director General of Recruiting, Education, and Training

DMMD--Director of Military Manpower Distribution-Col who oversees distribution of military personnel throughout CAF

DPCA0--Director Personnel Careers Administration for Officers-Col in charge of Officers' policy shop

DPCO--Director Personnel Careers for Officers-Colonel in charge of Officers' career management

DPCOR--Director Personnel Careers for Other Ranks-same as DPCO, but for Non-Commissioned Members

DPIS--Director of Personnel Information Systems-Col in charge of info system which supports CF personnel system

DPRC--Director of Production Requirements and Controls-Colonel who is chief personnel bean counter

DMOS--Director of Military Occupation Specifications-Col in charge of directorate charged with building structures and updating job descriptions

DPSRSC--Director Personnel Selection, Research and Second Careers-just what it says

LRPM--Long Range Planning Model-similar to Topline in USAF

MOC--Military Occupation Classification

OA--Occupational Analysis-tool used by DMOS to revise structure

OCDF--Officer Career Development Plan-plan which spells out various terms of service for officers in CAF

OCTP--Officer Cadet Training Plan-entry plan whereby member enters and trains as Officer Cadet before Commissioning

OPI--Office of Primary Interest

ORCDF--Other Ranks Career Development Plan-same as OCDF, but for ORs

OR--Other Ranks--old acronym for Non-Commissioned Members

FML--Preferred Manning Level-the level which each military occupation would number if every job in the CAF was filled

ROTP--Regular Officer Training Plan-commissioning plan which usually involves college education before commissioning

RTMOWG--Recruiting, Training and Manning for Officers Working Group-the coordinating group which examines problems in all of the above areas

RTMORWG--same committee organized to look after OR (newer term is NCM) problems

CF Officer Terms of Service

SE--Short Engagement-normal entering term of service which entitles member to nine years of service

IE--Intermediate Engagement-term of service offered to most SE members which allows them to serve 20 year period of service (20 years of service is the first point in time where a CAF officer becomes entitled to an immediate annuity upon release from the CAF)

IPS--Indefinite Period of Service-term of service which allows members to serve to age 55

ANNEX B, CHAPTER 2

ANNEXE B, CHAPITRE 2

GET-WELL PROCESS

PROCESSUS DE BONIFICATION

INITIAL INDICATION

INDICATION INITIALE

1 The first indication of a problem in a trade or classification can come from any of a variety of sources. These include:

1. La première indication qu'il existe un problème dans un métier ou dans une classification peut provenir de n'importe quel des organismes suivants:

- a the Commands indicating dissatisfaction with shortfalls or lack of appropriate skills or background in a particular trade or classification,
- b Branch Advisers could be the first to recognize deficiencies in either the quantity or quality of a group;
- c DGPCO/DGPCOR would be quickly aware of manning difficulties,
- d DGMU/DPRC as the staff agency setting requirements would spot quantitative shortfalls; and
- e DGRET as the OPI for production would be the first to be confronted by a lack of suitable trainees and/or adequate training resources.

- a. les commandements qui expriment leur mécontentement face aux insuffisances ou aux manques de compétences ou d'antécédents appropriés dans un métier ou dans une classification;
- b. les conseillers des services qui sont les premiers à constater les carences quantitative ou qualitative d'un groupe;
- c. le DGCMO ou le DGCMP qui se rendent vite compte des problèmes de dotation en personnel;
- d. le DGUE ou le DBPC qui fixent les besoins en dotation et qui sont à même de déceler les carences quantitatives;
- e. le DGREI qui, en sa qualité de EPR de la production, sera le premier à devoir faire face au manque de personnel qualifié ou de ressources nécessaires à la formation.

CONFIRMATION

CONFIRMATION

2 The NDHQ OPI who will confirm that a trade or classification is in trouble is DGMU /DPRC. Upon receipt of a signal of concern DPRC will conduct a preliminary staff check to determine the magnitude of the problem and what is forecast for the trade or classification in the next few years. This analysis centres primarily upon numerical considerations. If the problem is of a qualitative nature, this phase will have to be conducted by other staffs such as DMOS, DPCOR or DPCO, with input from Commands and Branch Advisers.

2. Le BPR du QGDN qui devra confirmer l'existence d'un problème dans un métier ou dans une classification, est le DGUE ou le DBPC. Lorsque le DBPC est mis au courant du problème, il effectue une vérification administrative préliminaire, afin de déterminer l'ampleur du problème et de voir ce qui a été prévu dans les années à venir pour le métier ou pour la classification. Cette analyse s'appuie principalement sur des données numériques. Si le problème est de nature qualitative, l'analyse sera faite par le DSPM, le DCM (PNO) ou par le DCMO, avec la collaboration des commandements et des conseillers des services.

3. An analysis of the trade or classification is needed to determine the precise nature of the problem. This will involve an examination of:

- a. the PML and Target Strength of the affected trade/classification and forecast changes;
- b. the numbers in the training pipeline;
- c. forecast attrition due to CRA and voluntary releases; and
- d. a review of current constraints upon production. This analysis should result in a projected get-well period based upon no extraordinary measures being taken to affect production. If this get-well period exceeds two years, the trade/classification will be declared to be in need of a Get-Well program.

CAUSE OF THE PROBLEM

4. In general terms, shortages in any trade/classification can be attributed to either retention or production. This may be oversimplified, but is valid in that shortages occur when replacement cannot keep up with the outflow. Retention problems normally entail complex and/or long-term solutions. These may involve pay, trade structures, employment patterns, job satisfaction, etc. Production solutions can be both short and long-term. To arrive at the cause, it will be necessary to examine some or all of:

- a. attrition patterns and forecasts,
- b. production constraints, and

ETENDUE DU PROBLÈME

3. Il faut effectuer une analyse du métier ou de la classification pour déterminer la nature précise du problème. Cette analyse doit comprendre l'examen:

- a. du NDS et de l'effectif visé pour le métier ou pour la classification et des changements prévus;
- b. du nombre de militaires en cours de formation;
- c. du taux prévu d'attrition (ARO et libérations volontaires);
- d. des contraintes normales de production. Cet examen devrait permettre de prévoir une période de bonification au cours de laquelle il ne sera pas pris de mesures extraordinaires susceptibles de toucher la production. Si cette période de bonification devait s'étendre sur plus de deux ans, on en conclura que le métier ou la classification nécessite l'application d'un programme de bonification.

CAUSE DU PROBLÈME

4. De façon générale, on peut attribuer aux facteurs de maintien en service et de production les manques de personnel dans un métier ou dans une classification. On peut encore simplifier, à la condition que les manques de personnel ne se produisent que lorsque l'on ne peut contrebalancer les départs par les remplacements. Les problèmes de maintien en service nécessitent habituellement des solutions complexes ou à long terme. Ces solutions peuvent se trouver dans la solde, les structures de métier, les modes d'emploi, la satisfaction au travail, etc. Les solutions aux problèmes de production peuvent être des solutions à court et à long termes. Pour trouver la cause du problème, il faut donc examiner les facteurs suivants, en tout ou en partie:

- a. les profils d'attrition et les prévisions,
- b. les contraintes de production,

- c. growth patterns and forecast for the trade/classification.

5 In some situations it may be necessary to conduct an OA. At this stage of the process there will be a great temptation to go with the quick fix, that which will solve the problem immediately. This must be resisted until it can be confirmed that the root cause of the problem is also being tackled. It would be of no value to boost enrolments dramatically if the attrition rate is still unusually high due to a basic dissatisfaction in the trade/classification, or if other unsuitable conditions persist.

6. Is the requirement valid? Before proceeding to detailed examination, it is essential to confirm that the requirement is properly stated. Are the qualifications overstated? In the case of the hard to recruit or train, is the overall requirement valid? Could someone of lesser skill perform the job? Are the rank levels of positions valid? This in turn will verify if the rank pyramid is valid. A shoulder in a rank pyramid can cause distortion to the ranks, both above and below it. The ultimate aim of this audit for officer classifications is to confirm the validity of the officer LRPM, administered in DGPCO by DPCAO. The LRPM states the ideal proportion of the classification by entry plan (ie, CFRP, ROTP, DEO, OCTP), which in turn influences the recruiting and selection processes.

OPTIONS AVAILABLE

7 Having confirmed that the statement of the requirement is valid, it is appropriate at this stage to examine the options that are open. These options should not be confined to those which will merely bring up the strength of the affected trade/classification. It may be more feasible/practicable to obtain relief through temporary assignment of personnel from other, perhaps overborne, trades/classifications. This would be of particular merit where the affected MOC has a high training cost. Perhaps force structure changes will shortly reduce the requirement, thus it is but a temporary shortfall.

- c. les modes de croissances et les prévisions pour le métier ou la classification.

5. Certains cas peuvent nécessiter une analyse des occupations (AO). A ce stade du processus, on sera grandement tenté de recourir au moyen rapide qui aura pour effet de régler le problème immédiatement. Cette solution est à éviter, du moins jusqu'à ce que l'on soit sûr de s'être attaqué à la racine du problème. Il ne servirait à rien d'accélérer le recrutement d'une façon exagérée si le taux d'attrition est inhabituellement élevé à cause d'un sentiment d'insatisfaction dans le métier ou dans la classification ou à cause d'autres conditions défavorables persistantes.

6. Le besoin est-il raisonnable? Avant de pousser plus avant l'examen, il faut bien s'assurer que le besoin est établi. Les qualifications sont-elles exagérées? En cas de difficultés de recrutement ou de formation, le besoin général est-il défendable? Une personne moins qualifiée pourrait-elle exécuter la tâche? Les niveaux de grades des postes sont-ils acceptables? Ceci permettra de vérifier si la pyramide des grades l'est aussi. Un étagement dans la pyramide peut se traduire par une distorsion aussi bien vers le bas que vers le haut. Le but ultime de cette vérification, dans le cas classifications d'officiers, est de confirmer la justesse du MPLT (officiers) dont s'occupe le DACO au sein du DGCMO. Le MPLT indique la proportion idéale de la classification par régime d'engagement (PIOSR, PFOR, RED, PFAO) qui, à son tour, influe sur le recrutement et la sélection.

CHOIX

7. Une fois que l'on s'est assuré bien-fondé du besoin, il convient à ce stade, d'examiner les choix qui s'offrent à nous. Il ne faut pas uniquement s'arrêter aux choix qui permettront de remplir les cadres d'un métier ou d'une classification. Il serait peut-être plus pratique de recourir à des affectations temporaires de personnel provenant d'autres métiers ou d'autres classifications, par exemple là où il y a des surnuméraires. Ceci serait particulièrement avantageux dans le cas où le CEM entraîne des coûts élevés de formation. Des changements dans la structure de la Force auront peut-être pour effet d'amoindrir le besoin; il ne s'agira alors que d'un manque temporaire de personnel.

INCREASED PRODUCTION OPTION

8. If all other options are deemed unsuitable, it will be necessary to determine how best to boost production. The RTMOWG and RTMORWG are normally tasked to initiate a specific Get-Well program. In so doing, the staff must ensure that the following constraints are fully examined and taken account of:

- a. Recruiting/selection pool — Is there an adequate pool of personnel from which to recruit and/or select? It is of no value to set a high CFRP target if suitable OR candidates are not available, or if the trades cannot afford to lose them.
- b. Training Constraints — Can the plant cope with an increased training load? Can the plant and staff be augmented to cater for an increased load?
- c. Fiscal Constraints — Is the budget sufficiently flexible to pay for the costs of increased training production?
- d. Assimilation Limits — If additional personnel are trained, can they be provided with suitable and challenging first tours? In some MOCs such as the Maritime environment, there may be a unique constraint (such as bunks in ships) which could seriously hamper any attempt to increase production.

PROBLEMS NOT RELATED TO PRODUCTION

9. As stated earlier, classification and trade deficiencies can be attributed, in the main, to either excessive attrition or insufficient production. To increase production can be relatively easy, provided the resources are made available. On the other hand, to staunch the outflow is considerably more difficult. For a start, it is often very hard to determine the cause of attrition. There are usually a variety of causes cited, depending upon the respondents' viewpoints. Thus, if no obvious cause for attrition is evident,

POSSIBILITÉ D'AUGMENTER LA PRODUCTION

8. Si aucun des autres choix ne convient, il faudra alors déterminer le meilleur moyen d'augmenter la production. Le GTRFDO et le GTRFD-(PNO) sont habituellement chargés de la mise sur pied d'un programme de bonification. Dans ce processus, il faut bien tenir compte des contraintes suivantes:

- a. Recrutement/sélection — Y a-t-il suffisamment de personnel pour que l'on puisse y faire du recrutement ou de la sélection? Il est inutile de trop compter sur le PIOSR si l'on ne peut trouver le PNO qui convient, ou si les métiers ne peuvent se permettre d'en laisser aller.
- b. Contraintes de formation — L'école est-elle en mesure de faire face à une augmentation de contingentement? Peut-on agrandir l'école et augmenter le personnel en conséquence?
- c. Contraintes financières — Le budget alloué peut-il absorber les coûts qu'entraînera une augmentation dans la formation?
- d. Capacité d'accueil — Si l'on entraîne du personnel additionnel, pourra-t-on lui offrir des premières affectations convenables et intéressantes? Dans certains CEM, le milieu marin par exemple, il se peut qu'il n'y ait qu'une contrainte (le nombre de couchettes dans les navires) qui pourrait sérieusement entraver toute tentative d'augmenter la production.

PROBLÈMES QUI NE TOUCHENT PAS LA PRODUCTION

9. Nous savons déjà que les manques de personnel dans un métier ou dans une classification sont dus aux trop nombreux départs ou à une production insuffisante. Il est relativement facile d'augmenter la production, pourvu que l'on ait les ressources nécessaires. D'autre part, il est beaucoup difficile de freiner les départs. Comme on l'a vu, les causes sont diverses, dépendant des points de vue exprimés par les répondants. Ainsi, si la cause de l'attrition n'est pas évidente, il faudra probablement déployer

ANNEX B, CHAPTER 2

it may be necessary to devote considerable effort to finding the root cause of the problem(s). One process which may assist in this step is OA, which is the purview of DMOS. Unfortunately this is an extensive undertaking and DMOS has a limited capacity for conducting OAs. It is impossible to accurately predict what could contribute to an unsatisfactory attrition rate. These could include:

- a. **Pay** — Pay dissatisfaction may be attributable to perceived inadequate remuneration for the skills, duties or working conditions pertaining to the classification or trade. Due to the complexity of the CF pay determination process, this offers anything but a short-term solution. The OPI for all pay and compensation items is Director General Compensation and Benefits (DGCB), who should be consulted at the outset if staff effort is to be properly applied.
- b. **Classification/Trade Structure** — Quite often job dissatisfaction is caused by lack of responsibility, inadequate training, and frustration with the jobs assigned. These are often symptoms of poor specifications or trades and classifications structures. Solutions may be as simple as amending specifications or could involve total restructuring. DMOS is the OPI for structure and should be in on the study at an early stage.
- c. **Personnel Policies** — Personnel policies such as the three-tier career concepts could also contribute to attrition. Rates for conversion from SE to IE, IE to IPS for officers and BE to IE, and IE to IPS for OR could be contributing to a high release rate. The Long-Range Planning Models are not immutable, and can, for valid service requirements, be modified as required if it is deemed not to be injurious to the long-term health of the trade or classification. The OPIs for the three career programs are DPCAOR (for OR) and DPCAO (for GSOs and specialist officers). Other personnel poli-

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beaucoup d'efforts pour la découvrir. A ce stade-ci, on pourrait recourir à une AO, cette mesure est du ressort du DSPM. Malheureusement, ce genre d'analyse nécessite beaucoup de travail, et le DSPM n'est pas toujours en mesure de la mener à bien. Il est impossible de cerner les causes précises d'un taux d'attrition jugé trop élevé. Parmi ces causes on retrouve.

- a. **La solde** — L'insatisfaction à cet égard, peut être attribuable à une rémunération jugée insuffisante pour les aptitudes, les tâches et les conditions de travail dans une classification ou dans un métier. A cause de la complexité du système de rémunération dans les FC, on ne peut guère envisager qu'une solution à court terme. Dans ce cas, le Directeur général — Rémunération et avantages sociaux est le BPR qu'il faut d'abord consulter si l'on veut que les mesures prises soient appliquées correctement.
- b. **Structure de la classification ou du métier** — Le manque de responsabilités, la formation inadéquate et les frustrations au travail sont des causes fréquentes d'insatisfaction. Ces causes sont souvent des symptômes de monographies médiocres ou de mauvaises structures de métiers et de classifications. On pourrait tout simplement modifier les monographies ou procéder à une restructuration complète. Le DSPM est le BPR et il devrait participer à l'étude dès le début.
- c. **Lignes de conduite relatives au personnel** — Des lignes de conduite comme les concepts de la carrière en trois valets pourraient également être des causes de départ. Les taux de conversion de ECD à Ed Int, de Ed Int à Ed Ind pour les officiers et de Engagement initial à Ed Int et de Ed Int à Ed Ind pour les non-officiers peuvent être des causes du taux élevé de libérations. Les MLTP n'étant pas immuables, on peut les modifier en fonction de besoins raisonnables, si l'on juge que le métier ou la classification n'auront pas à en souffrir à la

cies which may influence attrition rates are those pertaining to postings and employment patterns (sea/shore, field/garrison, North/South ratios). These are matters dealt with by DPCO and DPCOR. Posting stability/turbulence is influenced by a variety of factors, such as fiscal constraints, tour expiry dates, etc, which may also have to be examined.

ATTRITION ANALYSIS OPTION

10. An attrition monitoring centre was established under DPRC to monitor attrition rates. Director Personnel Selection, Research and Second Careers (DPSRSC) was assigned a complementary responsibility to establish an attrition data research and monitoring cell to conduct periodic analyses of the reasons for release, and conduct secondary analysis of attrition and retention data for specific groups found to have unusual attrition problems.

11. DPSRSC responds to short-term requests for staff-level analysis of the attrition/retention data for trades, classifications or other groupings of CF personnel, based on the data available from DPRC or DPIS. These analyses describe the pattern of attrition, for years, ranks, sub-classifications or other variables, and analyze that pattern along several dimensions in order to clarify relevant issues and trends.

12. Additionally, DPSRSC has delegated to CFPARU the responsibility for receiving and processing reasons for release as provided by the individual service member to the CFPARU exit questionnaire. CFPARU will maintain records of these reasons for cross sectional groupings of the CF for subsequent analysis, and conduct in-depth studies of the reasons for, and the mechanisms underlying, release and retention patterns.

13. The process chart illustrating the Get-Well Process is depicted in Figure 2B-1.

longue. Les BPR des trois programmes de carrière sont le DACPNO et le DACO. Les lignes de conduite relatives aux affectations et aux méthodes d'emploi (rapports mer/terre, campagne/garnison, nord/sud) peuvent aussi influencer les taux d'attrition. Ces questions relèvent du DCMO et du DCM (PNO). Les contraintes financières, les dates d'expiration du périodes de service, etc. sont des facteurs qu'il faudrait peut-être examiner, car ils ont effet sur l'équilibre du processus d'affectation.

ANALYSE DES TAUX D'ATTRITION

10. On a établi un centre de contrôle des taux d'attrition qui relève du DBPC. Comme responsabilité complémentaire, le Directeur — Sélection, recherche et secondes carrières du personnel (DSRSCP) a été chargé d'établir un bureau de recherche et de contrôle des données sur l'attrition. Ce bureau effectue des analyses périodiques des raisons de départs, ainsi que des analyses secondaires des données relatives à l'attrition et au maintien en service dans certains groupes qui éprouvent de graves problèmes causés par les départs.

11. En réponse aux demandes ponctuelles, le DSRSCP effectue des analyses administratives des données relatives à l'attrition et au maintien en service pour les métiers, les classifications et autres groupes de personnel des FC. Ces analyses sont fondées sur les données fournies par le DBPC ou par le DSIP. Elles servent à établir le profil d'attrition par années, par grades, par sous classifications et autres variables. Ce profil est ensuite examiné sous différents angles, afin d'en dégager les points importants et les tendances.

12. En outre, le DSRSCP a confié à l'URPFC la tâche de recevoir et d'examiner les raisons que chaque militaire invoque pour quitter les Forces, raisons que ce dernier indique dans le questionnaire de l'URPFC qu'on lui remet au moment de sa libération. L'URPFC conserve des dossiers sur ces raisons pour des groupes des FC qui se recoupent, aux fins d'analyses ultérieures. Elle effectue également des études approfondies des raisons et des mécanismes qui sous-tendent les profils d'attrition et de maintien en service.

13. La Figure 2B-1 illustre le processus de bonification.